NARCISSISM IN THE EATING DISORDERS: IMPACT ON TREATMENT ENGAGEMENT AND DROP-OUT

MARI A. CAMPBELL

D.CLIN.PSY THESIS (VOLUME I) 2007

UNIVERSITY COLLEGE LONDON

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

Overview

This thesis is in three parts. The first section is a literature review, examining what psychosocial factors influence the adherence to the psychological treatment of the eating disorders. It considers rates of drop-out and failure to engage found in the treatment of the eating disorders and the definitions use when researching this area. The psychosocial factors that have been examined in relation to lack of adherence to treatment are also investigated.

The second section is a research project examining narcissism in the eating disorders. It explores the role that core narcissism and the narcissistic defensive styles play in patients with eating disorders. Replicating the work of Waller, Sines, Meyers, Foster and Skelton (2007) and Sines, Waller, Meyer and Wigley (under consideration) it investigates the presence of narcissism in relation to eating disorder psychopathology and behaviours, and the associations with patients' core beliefs. The research then goes on to examine the impact narcissism has on treatment engagement and drop-out.

The final section is a critical appraisal of the research process. Following from the discussion sections of the previous two sections, it considers in greater detail the methodological and conceptual issues of conducting the literature review and research project. The clinical implications of these sections are also discussed in greater detail and a personal reflection on the research process is given.

Table of Contents

Index of Tables

Acknowledgements

I would like to thank my supervisors, Glenn Waller and Nancy Pistrang, for their time, advice, support, thoughtful comments and encouragement.

I would especially like to thank the patients who agreed to take part in the research project.

Finally my family and friends: thank-you for all your support, patience and well-timed distractions!

PART 1: LITERATURE REVIEW

WHAT PSYCHOSOCIAL FACTORS INFLUENCE ADHERENCE TO THE PSYCHOLOGICAL TREATMENT OF THE EATING DISORDERS?

1 Abstract

This paper reviews research examining the psychosocial factors that influence adherence to the psychological treatment of the eating disorders. Drop-out in the eating disorders was found to range between 15 and 73 percent, with an average drop-out of 37 percent. Specific factors (relating to the patient, therapy, therapist, patient-therapist relationship, social, geographical and physical features) are examined and discussed in turn. Little consistency was found with regards to the definition of drop-out employed by researchers or the factors found to have an impact of drop-out. The potential clinical implications of the findings are discussed, and suggestions are made for future directions in research.

2 Introduction

Both clinicians and researchers have noted that there is a problem with adherence to the psychological treatment of the eating disorders. It has been suggested that lack of adherence is likely to be detrimental to the long-term outcome of patients experiencing these difficulties. However, despite this there has been very little investigation in this area. This paper will review the current literature on adherence to treatment of the eating disorders. The first section considers the background and methodological issues in the current review. The second section examines in detail the factors that have been investigated in relation to rates of drop-out and completion of treatment. The third section draws the evidence together, and makes suggestions for future directions in research.

2.1 Background

There is a paucity of research into the treatment of the eating disorders. However, it is clear that therapy has a better chance of success if the patient attends and engages. Patients with eating disorders are well known for their ambivalence about change and their reluctance to engage in treatment (Halmi et al., 2005; Vandereycken & Pierloot, 1983; Vitousek, Watson & Wilson, 1998). It has been estimated that around 50 percent of patients with anorexia nervosa (Button, Marshall, Shinkwin, Black & Palmer, 1997; Vandereycken & Pierloot, 1983) and between five to 40 percent of patients with bulimia nervosa (Mahon, 2000) terminate treatment prematurely, thus reducing their chance of improvement.

Patients who terminate their treatment prematurely have a poorer long-term outcome (Beumont, Russell & Touyz, 1993; Garner, 1985; Grilo, Devlin, Cachelin & Yanovski, 1991; Vandereycken & Pierloot, 1983), and are unlikely to recover on

their own (Baran, Weltzin & Kaye, 1995; Fairburn, Jones, Peveler, Hope & O'Connor, 1993; Pekarik, 1992; Pike, 1998; Strober, Freeman & Morrell, 1997). Consequently, it has been suggested that these patients should be considered 'treatment failures' (Polivy & Federoff, 1997).

Zeeck, Hartmann, Buchholz and Herzog (2005) propose that the main goal of treatment is to engage patients and retain them in the psychotherapeutic process. Despite the importance of this element of treatment, there is a general lack of understanding in the area of adherence to psychological treatment in the eating disorders (Agras, Crow et al., 2000; Grilo et al., 1999; McKisack & Waller, 1997). It is important to understand drop-out phenomena in order to devise treatments that are acceptable to patients with eating disorders (Halmi et al., 2005). Early identification of factors associated with an increased risk of drop-out would also improve service management and treatment planning (Franzen, Backmund & Gerlinghoff, 2004; Mahon, Bradley, Harvey, Winston & Palmer, 2001).

Dropping out of therapy also impacts on clinical research outcomes (Cox & Merkell, 1989; Mahon, Bradley et al., 2001). Patients who drop out create biases in sampling, and thus impact on the validity, reliability and generalisability of the results. Vandereycken and Meermann (1992) conclude that sampling bias in the research literature is due in part to patient drop-out, yet note that it is rarely commented on in studies. When considering the outcome of treatment trials, Halmi et al. (2005) suggest that drop-out may negatively bias the advantages of randomisation.

The lack of understanding of adherence to psychological treatment is not unique to the eating disorders. Dropping out of psychological therapy is a common phenomenon (Pekarik, 1983; Wierzbicki & Pekarik, 1993). Pekarik (1983) report

rates for dropping out ranging from between 30 to 60 percent in individuals who begin psychotherapy. As with the eating disorders, drop-outs generally have poorer prognosis (Coldham, Addington & Addington, 2002). Coldham et al. (2002) suggest that factors such as poor pre-morbid and current social functioning, substance misuse and poor insight contribute to a failure to engage in treatment. In a major review of the literature on drop-out of psychotherapeutic treatment, Garfield (1994) found mixed results for gender, age, diagnosis and different aspects of psychopathology. However, factors such as belonging to an ethnic minority, having a low level of education and low income were shown to be predictive of dropping out of treatments.

Mahon (2000) conducted a review of the literature on dropping out of psychological treatment, specifically amongst patients with eating disorders. She noted that the majority of the research in this area is focused on patient characteristics, with little, if any, research conducted into therapist, therapy or patient-therapist relationship-related variables. She also commented on a number of methodological issues that limited the conclusions that could be drawn from the research conducted. These, along with further methodological concerns, are outlined below.

2.2 Methodological Issues

First, little attention has been paid to the area of adherence to psychological therapy for the eating disorders. Information about drop-out is often 'hidden' in other studies, such as research trials. However, trials often overlook drop-outs or go to great lengths to retain participants. Therefore, they may not be an accurate source of information (Mahon, 2000; Waller, 1997). Swan-Kremeier, Mitchell, Twardowski, Lancaster and Crosby (2005) commented on a tendency of treatment trials not to include patients with comorbid conditions, further biasing the information reported.

Second, definitions of drop-out vary across studies (Clinton, 1996; Mahon, 2000). Numerous terms are used and it can often be difficult to establish what constitutes a 'drop-out', with many studies failing to describe the criteria they have used. Wierzbicki and Pekarik (1993) report that drop-out rates differ significantly as a function of the definition used. As Kazdin and Mazurick (1994) suggest, it may be important to differentiate patients who terminate at an early versus late stage.

Third, it has been noted that a variety of populations have been studied across the eating disorders literature (McKisack & Waller, 1997; Mahon, 2000). Different diagnoses, age groups and treatments have been considered and studies have not employed consistent inclusion and exclusion criteria.

Fourth, Baekeland and Lundwall (1975) and, more recently, Mahon (2000) note a restricted focus on the part of researchers examining the phenomena of dropping out of psychological therapy for the eating disorders, limiting the information gained. Of the research conducted in this area, the majority considers patient-related factors. Therapist, therapy, relational and social, geographical and physical factors are rarely considered.

Further, as Mahon (2000) has pointed out when research is conducted there is little linkage between qualitative, hypothesis-generating research and quantitative, hypotheses-testing research. She suggests that more qualitative research needs to be conducted, in order to gain a deeper understanding of patients' experiences of dropping out, followed up by quantitative research to test out the hypotheses generated and to establish the clinical utility of the ideas.

Finally, few of the research findings to date, and specifically the positive findings, have been replicated (Mahon, Bradley et al., 2001). Such replication is important, in order to demonstrate that the difference seen in drop-out is due to the factors examined and not random variance or other, related, factors. The confusion in results found is further confounded by the large variance in drop-out rates reported (see Bacaltchuk et al., 2000; Cox & Merkel, 1989; Fettes & Peters, 1992; Mahon, 2000; Steinhausen, 2002; Treasure & Schmidt, 2004).

2.3 Aims of the Present Review

Allowing for the limitations outlined above, and following Mahon (2000), the aim of the current review is to examine the empirical literature on the psychosocial factors that are associated with adherence to psychological treatments for eating disorders. More specifically, the aim is to establish if the findings in this field have changed in recent years, looking in greater detail at the current literature. The review addresses a number of specific questions:

1. What definitions are currently used to establish rates of drop-out and failure to engage?
2. What are the rates of non-completion in psychological treatments for the eating disorders?
3. What patient factors are associated with the premature termination of psychological therapy for the eating disorders?
4. What therapy and therapist variables are associated with the premature termination of psychological therapy for the eating disorders?
5. What patient-therapist relational variables are associated with the premature termination of psychological therapy for the eating disorders?

6. What are the social, geographical and physical factors that impact on the premature termination of psychological therapy for the eating disorders?

3 Search Strategy

Psychinfo and Pubmed were searched using the terms 'treatment', 'psychological therapy', 'eating disorders', 'anorexia nervosa', 'bulimia nervosa', 'drop-out', 'attrition' and 'psychological treatment'. As a comprehensive review was published by Mahon in 2000, the search was restricted to papers published from 1998 to December 2006. Further publications were identified through the reference sections of the original sourced articles, these were published from 1991 onwards. Papers were included if they reported figures for drop-out rates or examined factors that may have been associated with drop-out or completion of treatment.

4 Findings of the Review

From the search, 13 papers were selected and a further 22 papers were sourced through these articles (see Table 1 for an overview of the papers included in the review) Of the 35 papers reviewed, 19 of the studies look specifically at drop-out, four include information about drop-out, despite it not being the main focus of the research, and 12 are treatment trials in which drop-out is recorded and (in the majority of cases) examined. One is a qualitative study, whilst the remainder are quantitative. Eight of the studies included in this review overlap with Mahon's 2000 review.

4.1 Definitions of drop out and failure to engage

As can be seen in Table 1, studies vary widely in their definitions of drop-out. Nineteen of the studies define drop-out in terms of not completing the full treatment package (including discontinuation of treatment against the advice of the therapist). Nine studies define drop-out in terms of a set time limit, including the number of sessions attended. Criteria range from discontinuing treatment before four weeks (Treasure et al., 1999) or not still being in contact with the service at four-year follow-up (van Strien, van der Ham & van Engeland, 1992). Three studies define drop-out with regards to body mass index or percentage ideal body weight at the point in which therapy was terminated (e.g., drop-outs are patients who left treatment prior to achieving and maintaining 90 percent ideal body weight for two weeks). Finally, Fassino, Abbate-Daga, Piero and Rovera (2002) define drop-out as the decision to give up treatment independent from motivation and stage of treatment. Three of the studies reviewed do not describe the process by which they identified patients who dropped out. In line with Kazdin and Mazurik (1994), four studies distinguish between patients who failed to engage in treatment (defined as not taking up treatment offered to them or failing to attend after the assessment), and those who dropped out of active treatment. Two other studies also subdivide drop-outs - one by the amount of weight gained and another by phase of treatment in which they dropped out.

4.2 Overall figures on drop-out and failure to engage

For the purpose of this review, drop-out figures will be considered in two ways. The percentage of patients who dropped out as reported in individual papers is referred to as 'drop-out per study'. Correcting for studies having different sample sizes, 'drop-

out per patient' refers to the percentage of patients who dropped out across all the studies reporting drop-out rates.

Two papers do not provide figures on drop-out. One (Eivors, Button, Warner & Turner, 2003) is a quantitative study, looking only at patients who dropped out. The second (Thiels, 2005), reporting on Thiels, Schmidt, Treasure and Garthe (2003), comments on drop-out rates but gives no figures or definitions.

In the studies specifically focusing on anorexia nervosa (N = 9), drop-out per study ranges from 20.2 to 55.0 percent, with a mean of 38.2 percent. Drop-out per patient is 36.7 percent. In studies where participants had a diagnosis of bulimia nervosa (N = 15) drop-out per study ranges from 17.0 to 69.2 percent, with a mean of 38.1 percent. Drop-out per patient is 37.7 percent. There is no statistical difference between drop-out rate per study between patients with anorexia nervosa from those with bulimia nervosa ($t(22) = 0.018$, $p = .986$). Therefore all data were combined for further analyses. When looking at all studies reporting drop-out rates (N = 33), overall drop-out per patient is 36.9 percent. Drop-out per study ranges from 15.2 to 73.4 percent, with a mean likelihood of dropping out of psychological treatment for the eating disorders of 37.12 percent.

There is no significant relationship between the number of participants and number of drop-outs per study ($r(34) = -0.118$, $p = .515$). Nor was there a significant relationship between the year in which the research was published and percentage drop-out per study ($r(33) = 0.238$, $p = .183$). This suggests that there is no temporal change in rates of drop-out. Therefore, clinicians do not appear to be getting any better (or worse) at retaining patients in therapy.

4.3 Patient Factors

Reviewing the literature on the classification, development and treatment of the eating disorders, Fairburn and Harrison (2003) examined risk factors associated with their development. They categorised these risk factors into general and individual-specific factors. This classification system, with the addition of comorbid characteristics and eating disorder symptomatology, will be used to examine the literature on patient-related factors that contribute to the premature termination of psychological therapy of the eating disorders. As noted by Mahon (2000), the majority of literature into the psychosocial factors that influence adherence to the psychological treatment of eating disorders is focused on factors specific to the patient only.

4.3.1 General Factors

Table 2 shows that research into general patient factors that influence rates of drop-out yields mixed or non-significant results. The balance of evidence suggests that age does not have a strong and consistent influence on adherence to the psychological treatment of the eating disorders with studies reporting positive, negative and non-significant correlations between age at admission and rate of drop-out. A number of other studies show positive relationships between general patient factors (e.g., being employed outside the home, occupation, social class, level of education) and drop-out. However, these factors are also shown in other studies to have no significant association with rate of drop-out. No significant differences are found in rates of drop-out or completion for a number of other general patient-related variables (e.g., gender, race or ethnicity, marital status, living situation or being in a relationship).

4.3.2 Individual-Specific Factors

4.3.2.1 Family history. A few research groups (see Table 3) have studied the impact of family history and functioning on dropping out of psychological treatment for the eating disorders. Positive relationships are noted between some family-related variables (e.g., experiencing two or more childhood traumas, having a family member with a history of contact with psychiatric services) and rates of drop-out, but these results have not been independently replicated. More specifically, Mahon and colleagues (Mahon, Bradley et al., 2001; Mahon, Winston, Palmer & Harvey, 2001) found parental break-up to be a good predictor of non-adherence to treatment and explain this in relation to patients experiencing difficulties forming attachments. On the other hand, Van Strien, van der Ham and van Engeland (1992) find no significant difference in rates of drop-out dependent on family intactness. The difference between these findings could be due to the different populations studied. Mahon and colleagues examine a population of adult patients with bulimia nervosa, whereas van Strien et al. consider all eating disorders, and the participants in their study were under 20 years of age. It may be that parental break-up impacts on adherence to treatment only for adult patients with bulimia nervosa. No significant differences are found between rates of drop-out and completion as a result of other family history factors (e.g., overall family functioning, family environment, position in the family, levels of distress from interpersonal sources).

4.3.2.2 Premorbid experiences. Table 4 shows mixed results with regards to the relationship between patients' premorbid experiences and rates of drop-out. Studies report a combination of positive, negative and/or non-significant differences when comparing a variety of premorbid experiences (e.g., treatment history, social adjustment, past history of anorexia nervosa) and rates of drop-out and completion. None of the studies are methodologically more robust than the others, which suggests that no significant impact of these variables on drop-out is indicated. Other

variables show positive (e.g., past history of major depression) and non-significant (e.g., previous psychoactive substance dependence, number of previous suicide attempts, previous drop-out history) correlations with non-adherence. However, these are only examined in single studies and therefore the results need to be replicated before firm conclusions can be drawn.

4.3.2.3 Premorbid characteristics. Table 5 outlines the premorbid patient-related characteristics that have been investigated in relation to the non-adherence to psychological treatment of the eating disorders. As can be seen, the research generates mixed results across a wide variety of variables. Positive and non-significant results are found for the same variables (e.g., self-esteem, impulsivity/use of impulsive behaviours, levels of interpersonal distrust, levels of ineffectiveness, levels of external locus of control, obsessive-compulsive features, social insecurity/inadequacy, levels of dominance) when studied by different research groups. The balance of evidence appears to support the lack of a significant relationship between drop-out and the individual characteristics.

Other premorbid characteristics (e.g., anger/anger expression, self-directedness, levels of co-operation, hostility, aggression, extraversion, inhibitedness, hopelessness, feelings of alienation/psychoticism, harm avoidance, level of expressiveness) that are shown to have a positive relationship with drop-out are only found in single studies or by single research groups. These results need to be independently replicated before conclusions can be made. A number of other variables (e.g., levels of inadequacy, pre-treatment stage of change, self-concept, perfectionism, rigidity, egotism, anxiety, interoceptive awareness, obsessive-compulsive disorder) are shown to have no significant influence on drop-out. With the exception of perfectionism, examined in two separate studies, these results have only been found in single studies and again need to be replicated. Further to this,

patient-related premorbid characteristics are examined in a relatively small number of studies, on which a high level of analyses were conducted on the data. This may have led to type I errors – the detection of a positive result when this is not the case.

4.3.2.4 Comorbid characteristics. A number of research groups study the relationship between comorbid characteristics and rates of drop out (see Table 6). Current level of comorbid depression is the most widely examined variable and yields positive, negative and non-significant results. Taking into account the strengths and limitations of these studies, it appears that no conclusive statement can be made in relation to the impact it has on rates of drop-out. Positive and non-significant relationships are also found between non-adherence to treatment and other comorbid characteristics (e.g., maturity fears, self-injurious behaviour). Whilst research into the impact of level of maturity fears on drop-out appears to generate no clear conclusion, the relationship between self-injurious behaviour and drop-out may be moderated by diagnosis, and warrants further investigation.

Two studies (Coker, Vize, Wade & Cooper, 1993; Waller, 1997) show positive relationships between comorbid characteristics (e.g., dissociative symptomatology, borderline psychopathology, diagnosis of borderline personality disorder) and rates of drop-out, but these findings have yet to be replicated. Other factors (e.g., comorbid personality disorder, other psychological symptoms, substance misuse/dependency, addiction, kleptomania) show no significant influence on rates of drop-out from the psychological treatment of the eating disorders.

4.3.3 Eating Disorder Symptomatology

The relationship between eating disorder symptomatology and adherence to the psychological treatment of the eating disorders is an area that has been widely investigated (see Table 7). However, the majority of the research shows mixed

findings. Some variables (e.g., duration of illness, BMI at admission) show positive, negative and no significant associations with drop-out across different studies. The balance of evidence suggests a lack of any relationship between these factors. Furthermore, despite three studies finding a positive relationship with diagnosis, overall research appears to suggest that it is unrelated to drop-out rates (see section 4.2 on *Overall figures of drop-out and failure to engage*). In a small study of patients with bulimia nervosa (McKisack & Waller, 1996), higher levels of restrictive behaviour were found to be indicative of drop-out. However, in a larger-scale study of patients with anorexia nervosa (Woodside, Carter & Blackmore, 2004), patients who dropped out of treatment had lower levels of restrictive behaviour than those who completed. It may be that the relationship between levels of restrictive behaviour and drop-out is different across diagnoses, but further research is needed to explore this. A mixed picture is also found with regards to the influence of drive for thinness on rates of drop-out. Two studies show that a greater drive for thinness is associated with an increased likelihood of dropping out, but this relationship is not supported in more recent research.

With the exception of the relationship between diagnosis and drop-out, the significant relationships between eating disorder symptomatology and drop-out rates are only examined in single studies. The variables include greater frequency of binge-eating, higher levels of vomiting, higher levels of bulimic cognitions/ psychopathology, higher laxative misuse, large range in weight fluctuation, greater body shape dissatisfaction/perception, greater weight loss, and older age of onset. Each of these variables is only shown to be related to drop-out in single studies. However, these findings are contradicted by other studies that suggest that there is no significant relationship between these variables. Other significant findings associated with greater likelihood of drop-out or lower levels of completing include lower pre-occupation with food or appearance, greater weight concern, greater

shape concern, increased restriction of fluids at point of admission, lower severity of bulimic symptoms, more severe perceived bulimic characteristics, lower desired weight, and shorter duration of amenorrhea[1] However, these findings have only been investigated once and need to be replicated.

Other eating disorder symptoms show no significant association between levels of drop-out and completion (e.g., levels of purging, excessive exercise, minimum and maximum ever weight, self-reported symptoms of bulimia nervosa, diuretic misuse, anorexic attitudes, eating disorder psychopathology, lowest ever BMI, age of menarche). However, despite a couple of exceptions (e.g., levels of purging, excessive exercise and self-reported symptoms of bulimia nervosa) these results are only found in single studies. Finally, in a qualitative study, Eivors, Button, Warner and Turner (2003) suggest that drop-out is a way of patients trying to exert control over the ego-syntonic nature of their eating disorder. This hypothesis has not been tested using a quantitative approach.

4.4 Therapist and Therapy Factors

When considering the impact of therapy and therapist factors on rates of relapse, the data tend to be hidden within treatment trials. The main focus of the literature in this area (see Table 8) compares rates of drop-out across different treatment modalities, whilst therapy-specific and therapist variables are under-investigated.

4.4.1 Type of Therapy

Vandereycken and Pierloot (1983) found patients who were treated with behaviour therapy are more likely to drop out of treatment, whereas those treated with medical or non-specific treatment are less likely to drop out. However apart from this one

[1] In early drop-outs when comparing to late phase 1 drop-outs and completers

study, no other research has found any significant differences in rates of drop-out according to treatment modality (e.g., cognitive-behavioural therapy, family therapy, interpersonal psychotherapy, guided self-help, psychodynamic psychotherapy) or the setting in which it is received (e.g., day- and out-patient therapy).

4.4.2 Therapy Factors

Only three studies look at specific therapy factors that may impact on adherence to psychological treatment for the eating disorders. Walsh, Fairburn, Mickley, Sysko and Parides (2004) found that a greater discrepancy between a patient's expectations of treatment and actual treatment provided predicted a higher rate of drop-out. Further, Mahon and colleagues (Mahon, Bradley et al., 2001; Mahon, Winston et al., 2001) found no significant differences in level of engagement dependent upon waiting times. These findings have yet to be replicated by an independent research team.

4.4.3 Therapist Factors

Clinton's (1996) cohort analysis of 60 patients with eating disorders is the only study that examines the influence of therapist variables on adherence to treatment for the eating disorders. He found no significant difference in drop-out rates when considering a number of therapist factors (e.g., level of training, profession, gender, years of experience, specific therapist, and change of therapist between assessment and treatment).

4.5 Patient-Therapist Factors

Only three of the studies reviewed consider the relationship between patient and therapist as a factor that could influence adherence to psychological treatment for the eating disorders (see Table 9). Two studies (Gallop, Kennedy & Stern, 1994;

Treasure et al., 1999) examine patients' and therapists' perception of the therapeutic alliance, but neither supports a relationship between therapist ratings of alliance and drop-out. However, Gallop et al. (1994) report that patients who dropped out of treatment are more likely to rate the alliance as worse than those who complete, but this finding was not replicated in a later larger study.

Clinton (1996) suggests that patients who drop out are found to have a greater dissimilarity in frames of reference from their therapists. Specifically, compared to patients who completed treatment, patients who dropped out had greater discrepancies with the therapists regarding higher expectations of help, on insight related interventions, than their therapists. However, this result has not been replicated and the study may have limited power due to the relatively small number of participants and high level of analyses conducted on the data. A qualitative study suggested that drop-out arose from the patient's inability to integrate notions of the disorder as dysfunctional and problematic (Eivors et al., 2003).

4.6 Social, Geographical and Physical Factors

As with patient-therapist factors, very few studies have examined whether social, geographical or physical factors influence rates of drop-out. Only six of the studies reviewed in this paper make reference to these factors (Table 10). A difference in rates of drop-out between clinical sites is noted in one study and explained in relation to the populations seen at the different clinics, specifically differing levels of psychopathology, commitment to treatment and mobility levels. However, similar site differences are not found in other research trials. When looking at specific social, geographical and physical factors that could influence rates of drop-out or completion (e.g., total distance travelled to clinic, patients' residence in relation to the clinic they were attending) none of the studies yield any significant differences.

4.7 Models

Four of the studies reviewed propose models of drop-out, groups of variables that together are thought to predict the patients who are most likely to drop out. Agras, Crow et al. (2000) suggest that patients who score higher on measures of impulsivity and bulimic cognitions are at an increased likelihood of dropping out. They have not, however, tested this model statistically.

Mahon, Winston, Palmer and Harvey (2001) propose a different model. They suggest that younger, employed patients from broken homes who have been in treatment before are more likely to drop out. This model was found to classify the engagement status of patients correctly 67.6 percent of the time. Peake, Limbert and Whitehead (2005), on the other hand, suggest a model that includes duration of disorder, impulse regulation and perceived and actual (e.g., body mass index and frequency of bingeing and vomiting) severity of the eating disorder. This model was found to predict drop-out or completion 68.2 percent of the time. Steel et al. (2000) suggest that by considering adult weight range, ineffectiveness, and scores on the Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961), Beck Hopelessness Scale (Beck, Weissman, Lester & Trexler, 1974) and Locus of Control Behaviour Scale (Craig, Franklin & Andrews, 1984), they could accurately allocate 90 percent of patients into drop-outs and completers.

5 Summary

Overall figures for dropping out of psychological therapy for the eating disorders range from 15 to 73 percent, with a mean drop-out per study of 37 percent and drop-out per patient of 37 percent. As noted in the review conducted by Mahon (2000),

there still appears to be no agreement on how to define drop-out. Criteria based on therapy timeframe, patients' weight and completion of treatment packages are used, with three recent studies offering no definition of drop-out at all.

Mahon (2000) also noted that of the research conducted into drop-out, patient factors appear to take centre stage, with therapist, therapy and therapist-patient relationship factors often being overlooked. The same pattern has been noticed in this review, with the addition of social, geographical and physical factors also receiving minimal research attention. However, despite patient factors being the most widely investigated area, research shows few consistent results. Overall it appears that general patient factors, premorbid and comorbid characteristics, premorbid experiences and eating disorder symptomatology have little consistent association with rates of drop-out. Also, with the exception of research linking increased likelihood of drop-out with experiencing childhood trauma, specifically parental break-up, family history appears to have no consistent association with rates of drop-out either.

Type of therapy does not seem to significantly influence adherence to the psychological treatment of the eating disorders. However, it may be important to consider that this data tends to come from treatment trials in which research teams have gone to great lengths to retain participants. Therapy and therapist factors have hardly been touched on in the research literature, therefore making it impossible to make an informed judgement about their impact. No consistent pattern was found between therapist-patient relationship factors and adherence to psychological treatment for the eating disorders, and despite one study (Agras, Walsh, Fairburn, Wilson & Kraemer, 2000) finding differences in rates of drop-out across different treatment centres, no studies found social, geographical or physical factors that could account for the difference.

Finally, a handful of models have been suggested to help predict which patients are likely to drop out of psychological treatment for the eating disorders. The three that have been statistically tested appear to show a relatively good level of accuracy.

6 Discussion

This review has aimed to establish the definitions and overall figures of drop-out in psychological treatments for the eating disorders. Further to this, the specific patient, therapy and therapist, patient-therapist relationship and social, geographical and physical factors have been examined. On the whole, few psychosocial variables were found to relate consistently to adherence to psychological treatments for the eating disorders.

6.1 Limitations of the Literature

There are several important limitations with regards to the literature reviewed. First, as previously noted, the results of the research conducted to date are still relatively inconclusive, with the majority of the significant findings only being noted in single studies or by single research groups. High amounts of analyses have often been conducted on the data. This could lead to type I errors, i.e., variables being reported as having a significant impact on drop-out when, in fact, they do not.

Second, many of the studies only report factors that have been found to relate to drop-out. Factors that are not significantly related to drop-out are often not reported in the literature. Clinical trials in particular seem to overlook factors that do not distinguish patients who complete from patients who drop out, despite the relative importance of this information.

Third, diagnoses are not comparable across studies - how patients are diagnosed (e.g., ICD-10 or DSM-IV), whether patients meet full- or partial-disorder criteria, and the specifics of the difficulties experienced when working with those diagnosed with 'eating disorder not otherwise specified' are often overlooked. Whilst no differences were found in drop-out rates between patients with bulimia nervosa and anorexia nervosa, it remains possible that the factors that impact on these patients' adherence to treatment are very different, and diagnosis may have a moderating effect. This suggests an area for future research.

Fourth, as noted by Halmi et al. (2005), attending for treatment does not necessarily imply compliance with treatment or following treatment recommendations. Patients may also discontinue treatment because they have recovered. Future research may need to consider the nature of non-engagement or drop-out, and having a well defined and consistently applied definition of drop-out may assist this.

The impact of the format of therapy is also difficult to assess due to small numbers, lack of control groups, and/or varying duration of treatments (Mahon, 2000; McKisack & Waller, 1997). Planning to consider the make-up of drop-outs, whilst conducting large treatment trials, may be one way in which to overcome these difficulties.

Finally, and as noted by Mahon (2000), type and location of therapy is often linked with severity of illness. Negative selection occurs, whereby the majority of research takes place within specialist services, thus investigating more complex cases. It is important for future research to consider community settings or to investigate those patients treated within general adult services.

6.2 Future Directions

In 2000, Mahon called for agreement on a multi-dimensional definition of drop-out. This still does not appear to have been achieved, with some new studies still not reporting the criteria they have used to categorise this subgroup. In order to facilitate future research into the psychosocial factors that influence adherence to the psychological treatment of the eating disorders it is important to develop a minimum dataset all researchers can use to define drop out and/or failure to engage. First, it is important a full definition of what constitutes a 'drop-out' is given and, where possible, linked with criteria used in other studies. Second, details of the treatment package participants are receiving and measures used to assess specific variables should be outlined, to allow for comparison across studies. Demographic data, including age, BMI, ethnicity and diagnosis are also important. Finally, the recruitment procedure (including inclusion and exclusion criteria), and whether or not the data were collected as part of a treatment trial, should be recorded. These ideas should be taken into account whether research is focusing specifically on drop-out or when drop-out rates are being reported in other research projects. Also, in line with the ideas of Kazdin and Mazurik (1994), where possible, research should distinguish between patients who drop out early in treatment (fail to engage) and those who drop out later in the process. This is rarely done at present.

With regard to patient factors that influence adherence to psychological treatment of the eating disorders, the main gap in the literature appears to be in the replication of previous studies. Many variables have been studied yet, as mentioned previously, few consistent and conclusive findings have emerged. Future research in this area should look to replicate existing studies. Other patient factors which may provide useful clinical information with regard to drop-out have also been overlooked (e.g., motivation, other personality traits or disorders and psychosocial history).

Similarly, research in the area of therapist- and therapy-related variables and their impact on treatment adherence in the eating disorders is almost non-existent. Specifically the impact of length, efficacy and effectiveness of treatment could usefully be considered in the future.

Lambert (1992) has noted that the therapeutic relationship accounts for 30 percent of the improvement in psychotherapy clients. Despite this, patient-therapist interaction factors are widely overlooked in the eating disorder research to date. Only two relatively small studies and one treatment trial consider the relationship between therapeutic alliance and patient-therapist expectations and rates of drop-out. Considering the importance placed on the patient-therapist relationship and its impact on engagement and treatment outcome in the broader literature on psychological therapies (e.g., Krupnick et al., 1996; Martin, Garske & Davis, 2000), it is key that future research examines this further.

There are also large gaps in the literature with regards to geographical, social and physical factors influencing rates of drop-out. Only three studies look specifically at this area, and these only consider geographical factors. Future research could further examine geographical factors, as well as considering the social and physical factors, for example social support, that may increase or impact upon rates of drop-out.

Some research groups have started to develop models with which to best predict the patients that are at an increased risk of drop-out. However, this type of research is still in the early stages, and only three studies have tested such models statistically. Further to this, these models, as with the majority of research in this field, focus specifically on patient variables, overlooking the potential impact of other

factors. Future models could usefully consider other types of variables in order to gain a fuller clinical picture, as well as providing direction for adaptation of treatment for patients who find it more difficult to complete.

Further to the ideas discussed above, the design of future research needs to focus on bringing together the previous research conducted. Prospective, well thought-out studies should be developed, considering factors previously suggested, or strongly indicative, as having predictive value.

As noted above, there appear to be many gaps in the literature on the psychosocial factors influencing the adherence to the psychological treatment of the eating disorders. Future research should focus on addressing these gaps. Considering factors that have been shown to be linked to poor outcome in patients with eating disorders may be important as it could be that treatment is not effective because patients are dropping out. For example, patients with comorbid personality disorder have been shown to have poor outcome (Johnson, Tobin & Dennis, 1990; Rossiter, Agras, Telch & Schneider, 1993). Considering personality traits or comorbid personality disorders may allow us to understand the nature of a patient's decision to terminate treatment early. Woodside, Carter and Blackmore (2004) support this and suggest a link between drop-out and impulsive personality traits. Further to this proposal, Clinton (1996) has suggested that personality factors may play a role in treatment expectations and drop-out. Other researchers have suggested a relationship between pathological narcissism and drop-out which may warrant further research (Waller, Sines, Meyer, Foster & Skelton, 2007).

Mahon, Bradley et al. (2001) noted that it is unlikely that dropping out will be adequately predicted by pre-treatment factors alone, and therefore future research may need to consider factors that operate throughout treatment. Factors such as

satisfaction with therapy or therapist-patient interactions across sessions could be considered.

Whilst there has been a move towards a more transdiagnostic approach to the diagnosis and treatment of the eating disorders (Fairburn, Cooper & Shafran, 2003), it may be important to consider some variables and their relationship with drop-out, with respect to the patients' diagnostic subtype. For example, expression of anger appears to be different in drop-outs with anorexia nervosa and bulimia nervosa (Fassino, Abbate-Daga, Piero, Leombruni & Rovera, 2003; Fassino et al., 2002). Other patient-related factors, such as personality traits and disorders may also need to be considered differently according to the different disorders, as distinct patterns have been noted for the different disorders (Vervaet, van Heeringen & Audenaert, 2004).

6.3 Clinical Implications

Improving the ability to predict drop-out takes us a step closer towards developing interventions and strategies to reduce it (Mahon, Bradley et al., 2001). Future research considering the factors outlined above might allow for more accurate prediction of those patients who are likely to drop-out and, in turn, might lead to the development of strategies to target the specific difficulties that seem to face some patients. Increased knowledge within this research field would also allow for greater service development. As Blouin et al. (1995) point out, identifying factors that influence drop-out could enable clinicians to utilise pre-treatment assessment information more effectively in planning treatment, which in turn could lead to more time- and cost-effective services.

Table 1: Overview of Studies Reviewed

Paper	Pop.	Method	Drop-out (definition) figures	Patient Factors	Therapy & Therapist factors	Patient-Therapist factors	Social/ Geographical/ Physical factors	Limitations
Agras, Crow et al. (2000)	BN	CBT for BN with 194 women.	Drop-out (no definition) = 26%.	Drop-outs had higher levels of BN cognitions, greater concern about shape & greater impulsivity. Moderate effects – drop-outs more likely to have past history of AN &/or major depression & have poorer social adjustment. Impulsivity x BN cognitions best predictor of drop-out.	-	-	-	Treatment trial
Agras, Walsh et al. (2000)	BN	RCT of CBT & IPT with 200 patients.	Drop-out (not completing treatment & follow-up) = 27%.	-	28% dropped out in CBT group & 24% in IPT group. No significant difference.	-	Difference in drop-out between sites – mobility & different populations (more severe psychopathology & less	Treatment trial

							commitment to treatment).	
Bara-Carril et al. (2004)	BN	Evaluation of CD-ROM self-help for 107 patients with BN.	Failure to engage (not taking up tx) = 17.5%. Drop-out (starting tx but not attending all 7 sessions) = 58%.	-	-	-	-	Treatment trial
Blouin et al. (1995)	BN	Group treatment trial with 81 patients.	Drop-out (not completing programme) = 28.7%.	Drop-outs had higher levels of interpersonal distrust & feelings of alientation/psychoticism. No differences between drop-outs & completers on symptom severity, bulimic psychopathology, depression, self-esteem, age, BMI at admission, weight history, duration of illness or family environment.	-	-	-	Limited power due to high levels of analysis.

Clinton (1996)	ED	Cohort analysis of 60 patients	Drop-out (during assessment interviews or treatment) = 36.7%.	No differences between drop-outs & completers in eating disorder symptomatology or psychopathology, general psychiatric symptoms, diagnosis, previous treatment, patient's level of education or employment status.	Higher levels of dissimilarity of frames of reference between patients & therapist, in the drop-out group, specifically drop-outs had greater expectations of help on insight related interventions than therapists. No difference between rates of drop-out on therapists' level of training, years of experience, type of treatment, change of therapist between	-	-	Limited power due to small N.

					assessment & treatment, therapist gender, therapist profession & specific therapist			
Coker et al. (1993)	BN	Cohort analysis of 31 out-patients.	Drop-out (failure to engage with CBT programme) = 19%.	Drop-outs had a higher duration of illness, current levels of depression, laxative abuse, episodes of self-harm, lower desired weight than completers & were more likely to meet diagnosis of BPD than completers. No significant difference between drop-outs & completers on measures of self-concept, past psychoactive substance dependence, self-induced vomiting, bingeing, impulsive behaviours, body-shape perception, past history of AN, past weight or demographic data (not specified).	-	-	-	Limited power due to small N.

Dare et al. (2001)	AN	RCT of treatment for 84 out-patients.	Failure to engage (not attending first tx session) = 4.8% Drop-out (not completing tx) = 31.0%.	-		No difference in drop-out rates between therapies (focal psychoanalytic psychotherapy, CAT, FT, & routine low contact).	-	-	Treatment trial.
Eivors et al. (2003)	AN	Written accounts & semi-structured interviews with 8 patients (qualitative study).	Drop-out (regular treatment relationship ended by the patient's unilateral decision).	Drop-out as a means of pt exerting control over their perceptions of their eating disorder behaviour.		-	Inability to integrate other's notions of the disorder as dysfunctional & problematic.	-	Bias sample due to low level of participation (28.6%). Lack of comparison group. Limited generalisabilit y.
Fairburn	BN	RCT of 3	Drop-out	-		No significant	-	-	Treatment

et al. (1991)		treatments for BN among 75 patients	(discontinuing tx) = 17%.		difference in rates of drop-out between CBT (16%), BT (24%) & IPT (12%).			trial.
Fassino et al. (2003)	BN	Cohort analysis of 83 out-patients.	Drop-out (terminating treatment before therapist would recommend) = 33.7%.	Drop-outs had higher levels of impulsivity, maturity fears, ineffectiveness, intensity of anger, general disposition to feel anger without a specific reason, general anger expression, lower self-directedness & cooperativeness. No significant differences between drop-outs & completers on age, age of onset, duration of illness, current BMI, Laxative misuse, purging, bingeing, excessive exercise, educational level. (Temperament inclined to anger & greater intensity of anger).	-	-	-	Limited power due to small N. Treatment Trial
Fassino et al.	AN	Cohort analysis of	Drop-out (decision to	Drop-outs show higher levels of trait anger, anger expression-in & anger	-	-	-	Limited power due to

(2002)		99 outpatients.	give up treatment independently from specific moment along IPDP cycle & from motivation) = 31.3%.	expression-out, anger expression, harm avoidance, drive for thinness & social insecurity, & lower levels of self-directedness & cooperativeness than completers. No significant difference between drop-outs & completers in current age, age at onset, duration of illness, BMI, laxative misuse, purging, bingeing, excessive exercise, diagnosis & educational level.				small N. Treatment Trial.
Favaro & Santonas taso (1998)	BN	Cohort analysis of 125 outpatients.	Drop-out (unplanned abandonment of therapy within the first 6 months) = 49.6%.	Higher rates of drop-out in patients with impulsive but not compulsive self-injurious behaviour.	-	-	-	Not specifically on drop-out.
Favaro & Santonas taso (2000)	AN	Cohort analysis of 236 out-patients.	Drop-out (unplanned interruption of therapy	Higher rates of drop-outs in those patients engaging in both impulsive & compulsive self-injurious behaviour.	-	-	-	Biased sample – excluded patients who

			before the target weight/BMI 19 reached) = 41.1%.	No significant difference in rates of drop-out between subtype of AN.				needed in-patient admission. Not specifically on drop-out.
Franzen, Backmund & Gerlingh off (2004)	All EDs	Cohort analysis of 125 patients referred to group day treatment (includes CBT, psychoeducation & IPT).	Drop-out (completing 4 month programme) = 15.2%.	Drop-outs had more severe BN symptoms (bingeing & vomiting), higher levels of aggression & extraversion, & lower levels of inhibitedness. No significant difference between drop-outs & completers in age, marital status, occupation, living situation, illness duration, BMI, laxative abuse, diagnosis, comorbid depression or previous type of treatment received.	-	-	-	Focus on one treatment programme.
Gallop, Kennedy & Stern	ED	Cohort analysis of 33	Drop-out (not completing the	Drop-outs had a shorter duration of illness than completers.	-	Drop-outs had lower levels of perceived	-	Limited power due to small N.

(1994)		inpatients	programme) = 32 3%.	No difference between drop-outs & completers in age of admission.		therapeutic alliance than completers No difference in therapists' ratings of therapeutic alliance between drop-outs & completers.		Not specifically on drop-out.
Halmi et al. (2005)	AN	RCT comparing medication, CBT & combinatio n in 122 patients.	Drop-out (no definition) = 55%.	High self-esteem was a good predictor of completing treatment.	Dissatisfaction with some aspect of treatment reported for 68% of drop-outs. No significant differences in drop-out rates between treatments.	-	-	Treatment Trial.
Kahn & Pike (2001)	AN	81 inpatients within	Drop-out (pts who left tx prior to	Drop-out modestly predicted by binge-purge subtype diagnosis.	-	-	-	Participant bias - free tx in return for

		specialist service.	reaching 90% IBW & maintaining for two weeks) = 33.3% Early (below 80% IBW) = 16.0%, late (above 80% IBW) = 17.3%.	No significant difference for body shape dissatisfaction, AN attitudes, age at admission, age of onset, duration of illness, previous hospitalization, BMI (lowest & at admission), comorbid depression, psychological distress (SCL-90-R), distress from interpersonal sources, self-esteem. Early group had significantly more previous hospitalizations than the late group.				taking part.
McKisack & Waller (1996)	BN	Analysis of 15 women attending group therapy.	Drop-out (cease attendance during first third of sessions) = 26.7%.	Drop-outs had greater drive for thinness & body dissatisfaction. No difference between completers & drop-outs in age, BMI, bingeing, vomiting, ineffectiveness, interoceptive awareness, perfectionism, maturity fears, interpersonal distrust, bingeing & vomiting.	-	-	-	Limited power due to small N.
Mahon,	BN	Retrospecti	Drop out	Drop-outs were more likely to have	Drop-out unrelated	-	-	Retrospective

Bradley et al. (2001)		ve case note analysis of 114 patients - replication of Mahon et al. (2001).	(ceasing contact with clinic before 10th session) = 55.3%.	experienced an increased number of childhood traumas (2+ events), specifically parental break-up. No significant difference between drop-out & completers in level of education & occupation (although drop-outs significantly less likely to be in semi-skilled or managerial/professional employment).	to waiting time.			study
Mahon, Winston et al. (2001)	BN	Retrospecti ve case note analysis of 111 patients.	Drop out (ceasing contact with clinic before 10th session) = 48%.	Drop-outs were more likely to be younger, employed outside of the home, had lower severity of symptoms, were more likely to have experienced previous treatment & traumatic events in childhood (2+), specifically parental break-up. No difference between drop-outs & completers on self-reported symptoms of ED or comorbid psychiatric symptoms (SCL-90-R).	Drop-out unrelated to waiting time.	-	-	Retrospective study.

				Younger, employed patients from broken homes who have been in treatment before more likely to drop-out				
Mitchell et al. (2002)	BN	RCT of secondary treatment for 62 patients who failed to respond to CBT.	Drop-out (not completing treatment programme) = 40.3%.	Drop-outs significantly younger & had better social adjustment than completers.	No difference in rates of drop-out between IPT (32.3%) & medical management (48.4%).	-	No difference in number of drop-outs between sites.	Treatment trial.
Palmer et al. (2002)	BN, PBN, BED	RCT of 3 self-help treatments (minimal, face-to-face & telephone) & waiting list control for BN in 121 outpatients.	Drop-out (terminated treatment by 4 month reassessment) = 25%.	-	No significant differences in drop-out between therapies & waiting list controls.	-	-	Treatment trial. Data collected within one specialist service.

Peake, Limbert & Whitehead (2005)	All EDs	Cohort analysis of 261 day- & out-patients treated with CBT.	Drop-out (not completing treatment programme) = 26.4%.	Drop-outs had significantly higher levels of depression, lower self-esteem & greater impulsivity at assessment than completers. No significant difference in age, gender, diagnosis, marital status, BMI, objective bulimic episodes between drop-outs & completers. Model including duration of disorder, perceived severity, impulse regulation & actually severity predicted drop out or completion 68.2% of time.	No significant difference in drop out rates between out- & day-patients.	-	-	Data collected within one specialist service.
Probst et al. (1999)	All EDs	Cohort analysis of 460 inpatients.	Drop-out (not completing 4 month treatment programme) = 32%. Early drop-outs (left	Drop-outs were significantly older, had higher weight, longer duration of illness & more bulimic behaviours (EDES) at admission than completers.	-	-	-	Treatment trial. Not specifically on drop-out.

			within 2 weeks) = 8.5%. Immediate drop-outs (between 2 weeks & 3 months) = 13.3%, late drop-outs (after 3 months) = 11.7%.					
Steel et al. (2000)	BN	Cohort analysis of 32 referrals to specialist service.	Drop out (discontinuing treatment prior to successful completion of programme as determined by treating	Drop-outs had significantly higher scores of ineffectiveness, depression & hopelessness, larger weight fluctuation range & elevated levels of external locus of control. No significant difference between drop-outs & completers in frequency of bingeing & purging at admission, age, marital status & employment.	-	-	-	Small N – only able to detect large differences.

			clinician) = 43%	Adult weight range, ineffectiveness. BDI, BHS & LCB could accurately predict 90% of patients into drop-outs & completers.				
Surgenor, Maguire & Beumont (2004)	AN	Cohort analysis of 213 in-patients.	Drop-out (self-discharged from tx against medical advice or left tx without leave) = 20.2%.	Drop-outs had significantly lower BMI on admission & greater likelihood of diagnosis of AN purging sub-type or actively restricting fluids. No significant difference between drop-outs & completers in age, duration of illness, gender, marital status, tx hx, excessive ex, lax abuse, diuretic abuse, vomiting, bingeing, EDI scores, EAT scores, self-esteem, comorbid depression & psychiatric comorbidity (inc, substance misuse, self-harm, suicidal attempts).	-	-	Having residence in same city as clinic not related to drop-out rates.	-
Swan-Kremeier et al. (2005)	All EDs	Cohort analysis of 209 outpatients.	Failure to engage (not taking up treatment) =	Trend towards drop-out being more common among BN & EDNOS than AN. No significant differences between	-	-	Drop-outs more likely to be employed.	Retrospective review – some data may not be

			7.9%. Drop-out (termination of tx not indicated in final documentation) = 73.4%.	drop-outs & completers with regards to race, gender, martial status & education.			Distance travelled to clinic not affect drop-out rate	recorded. Includes 27% patients who were asymptomatic at point of drop-out.
Thiels (2005)	BN	Response to commentary following on from Thiels, Schmidt, Treasure & Garthe (2003) RCT comparing guided self-help &	-	-	No significant difference in drop-out rates between guided self-help & CBT.	-	-	Treatment trial. Drop-out not reported in main article.

		CBT						
Treasure et al. (1999)	BN	RCT of 125 patients comparing 4 sessions of MET or CBT.	Drop-out (failed to take up treatment or did not complete the first 4 weeks) = 30.4%.	No significant difference between drop-outs & completers on frequency of binge eating, vomiting, laxative misuse or pre-treatment stage of change.	No significant difference in drop-out rates between MET & CBT.	No significant difference between drop-outs & completers on patient & therapist measures of therapeutic alliance.	-	Treatment Trial.
van Strien, van der Ham & van Engeland (1992)	All EDs	Prospective follow-up study of 90 patients.	Drop-out (of research within 4 years) = 38%.	Drop-outs had significantly lower levels of education, increased levels of hostility, less preoccupied with food & appearance & a family member with a history of contact with psychiatric services. No significant difference between drop-out rates between diagnoses, age at assessment, duration of illness, social class, intactness of family, amount of weight loss, levels of inadequacy.	-	-	No difference in travelling distance to the clinic between drop-outs & completers.	Limited power due to large number of variables analysed. All patients were under 20 years of age at initial assessment.

			social-inadequacy, rigidity, egotism, dominance & self-esteem.				
Vanderey cken & Pierloot (1983)	AN	Cohort series analysis of 133 inpatients.	Early phase 1 drop-out (first week) = 9.8%, late phase 1 drop-out (after first week & before phase 2) = 12.0%, phase 2 drop-out = 27.8%. Total drop-out = 49.6%.	Older age at admission in early drop-outs than phase 2 drop-outs & completers. Older age of onset in phase 1 than phase 2 drop-outs. Early phase 1 drop-outs significantly shorter duration of amenorrhea than late phase 1 & completers. Greater weight loss at admission in early drop-outs than completers. Lower social classes & had a lower level of educational in early drop-outs than completers. Longer duration of illness in late phase 1 drop-outs than phase 2 drop-outs. No differences between drop-outs &	More early drop-outs treated by behaviour therapy. More completers received medical or non-specific treatment.	-	-	Limited power due to large number of variables studied.

				completers in age of menarche, percentage of body weight lost, precipitating factors (undefined), previous treatment, bingeing, vomiting, addiction, kleptomania, personality disorder, position in the family.				
Waller (1997)	BN & AN (B-P)	Cohort analysis of 50 outpatients.	Failure to engage (not attending after assessment) = 14%. Drop-out (not completing course of therapy) = 30%.	Drop-outs & those who fail to engage groups had higher levels of borderline psychopathology, dissociative symptomatology & more severe perceived BN characteristics No difference between drop-outs & completers in age, diagnosis, BMI, BITE symptoms, binges per week & vomiting per week, self-esteem, locus of control & scores of family functioning (general functioning, problem solving, communication, roles, affective responsiveness & general function). Those who failure to engage had healthiest level of function in perceived	-	-	-	Small N

				family interaction & drop-outs saw their families as poorer at showing emotional concern for each other.				
Walsh et al. (2004)	BN	RCT comparing guided self-help & fluoxetine in 99 primary care patients.	Drop-out (not completing full treatment programme) = 69.2%.	-	Drop-outs had greater discrepancies between their expectations & treatment provided. No difference in drop-out rates between guided self-help & medication only groups.	-	No difference in drop-out between sites	Treatment trial.
Woodside, Carter & Blackmore (2004)	AN	Cohort analysis of 166 inpatients.	Drop-out (discharge before achieving BMI of 20) = 51%	Drop-outs had increased likelihood of having binge-purge subtype, higher BMI at admission, higher levels of depression at admission, higher weight concern scores, lower restraint scores & higher fear of maturity scores.	-	-	-	High criteria for drop-out. Limited power due to high number

								of variables analysed.
				No difference in rates of drop-out across marital status, employment status, living situation, age at onset, duration of illness, age at admission, maximum & minimum lifetime weight, previous treatment & frequency of bingeing & purging.				
Zeeck et al. (2005)	AN	Cohort analysis of 133 inpatients.	Drop-out (one-sided decision for a premature termination of treatment before planned regular discharge date) = 31.6%. (early – within 6 wks,	Drop-outs had significantly higher number of psychiatric symptoms (SCL-90-R) at admission less previous hospitalization, greater maturity fears, less likely to have comorbid depression & more likely to be seen as domineering & expressive/intrusive (IIP-C). No difference in rates of drop-out across diagnosis subtype, age, gender, being in a relationship, living with partner, level of education, duration of illness, co-morbid personality disorder, substance dependency, OCD & previous drop-out.	-	-	Outside factors counted for 9.5% of drop-out.	-

middle – before target wt, late – after target wt) (team v pt decision).	IIP-C higher factor on domineering & expressive/intrusive for drop-outs. Patients dropping out in the early phase had higher O-C scores, pts in the middle phase had higher levels of anger & hostility.

Table 2: General patient factors influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Younger age	Mahon, Winston, Palmer & Harvey (2001) Mitchell, Halmi, Wilson, Agras, Kraemer & Crow (2002)	Probst, Vandereycken, van Coppenolle & Pieters (1999) Vandereycken & Pierloot (1983) – early v phase 2 & completers	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Franzen, Backmund & Gerlinghoff (2004) Gallop, Kennedy & Stern (1994) Kahn & Pike (2001) McKisack & Waller (1996) Peake, Limbert & Whitehead (2005) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000)* Surgenor, Maguire & Beumont (2004) Van Strien, van der Ham & van Engeland (1992) Waller (1997) Woodside, Carter & Blackmore (2004) Zeeck, Hartmann, Buchholz, & Herzog (2005)

Low level of education	Van Strien, van der Ham & van Engeland (1992) Vandereycken & Pierloot (1983) – early v completers	Clinton (1996) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Mahon, Bradley, Harvey, Winston & Palmer (2001) Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) Zeeck, Hartmann, Buchholz, & Herzog (2005)
Employed outside the home	Mahon, Winston, Palmer & Harvey (2001) Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005)	Clinton (1996) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000) – mediating Woodside, Carter & Blackmore (2004) Van Strien, van der Ham & van Engeland (1992)
Lower social class	Vandereycken & Pierloot (1983) – early v completers	
Black & ethnic minority		Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) Peake, Limbert & Whitehead (2005) Surgenor, Maguire & Beumont (2004)
Gender		Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) Zeeck, Hartmann, Buchholz, & Herzog (2005)
Occupation		Franzen, Backmund & Gerlinghoff (2004) Mahon, Bradley, Harvey, Winston & Palmer (2001)

Being in a relationship	Zeeck, Hartmann, Buchholz, & Herzog (2005)
Living situation	Franzen, Backmund & Gerlinghoff (2004) Woodside, Carter & Blackmore (2004) Zeeck, Hartmann, Buchholz, & Herzog (2005)
Marital status	Franzen, Backmund & Gerlinghoff (2004) Peake, Limbert & Whitehead (2005) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000) – mediating Surgenor, Maguire & Beumont (2004) Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) Woodside, Carter & Blackmore (2004)

Table 3: Patients' family history factors influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Increased number (2+) of childhood traumas	Mahon, Bradley, Harvey, Winston & Palmer (2001) Mahon, Winston, Palmer & Harvey (2001)		
Family member with history of contact with psychiatric services	Van Strien, van der Ham & van Engeland (1992)		
Healthy level of perceived family interaction	Waller (1997) – failure to engage		
Poor familial emotional concern	Waller (1997) – drop-out		

Parental break up	Mahon, Bradley, Harvey, Winston & Palmer (2001) Mahon, Winston, Palmer & Harvey (2001) – engagement	Van Strien, van der Ham & van Engeland (1992)
Family functioning		Waller (1997) - general functioning, problem solving, communication, roles, affective responsiveness & general function
Greater distress from interpersonal sources		Kahn & Pike (2001)
Family Environment		Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995)
Position in the family		Vandereycken & Pierloot (1983)

Table 4: Patients' pre-morbid experiences influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
More previous treatment	Mahon, Winston, Palmer & Harvey (2001)	Zeeck, Hartmann, Buchholz, & Herzog (2005) - hospitalisation	Clinton (1996) Franzen, Backmund & Gerlinghoff (2004) – type Kahn & Pike (2001) – hospitalisation Surgenor, Maguire & Beumont (2004) Vandereycken & Pierloot (1983) Woodside, Carter & Blackmore (2004)
Poorer social adjustment	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000) - moderate effect	Mitchell, Halmi, Wilson, Agras, Kraemer & Crow (2002)	
Past history of major depression	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000) - moderate effect		
Past history of AN	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000) - moderate effect		Coker, Vize, Wade & Cooper (1993)
Previous psychoactive substance dependence			Coker, Vize, Wade & Cooper (1993)
Previous suicide attempts			Surgenor, Maguire & Beumont (2004)
Previous drop-out			Zeeck, Hartmann, Buchholz, & Herzog (2005)

Table 5: Patients' pre-morbid characteristics influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Low self-esteem	Halmi, Agras, Crow, Mitchell, Wilson, Bryson & Kraemer (2005) Peake, Limbert & Whitehead (2005)		Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Kahn & Pike (2001) Surgenor, Maguire & Beumont (2004) Van Strien, van der Ham & van Engeland (1992) Waller (1997)
Greater impulsivity/use of impulsive behaviours	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Peake, Limbert & Whitehead (2005)		Coker, Vize, Wade & Cooper (1993)
Higher levels of interpersonal distrust	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995)		McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004)
Higher levels of ineffectiveness	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000)		McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004)

Elevated levels of external locus of control	Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000)	Waller (1997)
Greater obsessive-compulsive features	Zeeck, Hartmann, Buchholz, & Herzog (2005) – early phase 1 drop-outs only	Clinton (1996)
Higher social insecurity/ inadequacy	Fassino, Abbate-Daga, Piero & Rovera (2002)	Van Strien, van der Ham & van Engeland (1992)
Greater levels of dominance	Zeeck, Hartmann, Buchholz, & Herzog (2005)	Van Strien, van der Ham & van Engeland (1992)
Greater anger	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) – intensity, disposition towards without specific reason & general anger of expression. Fassino, Abbate-Daga, Piero & Rovera (2002) – trait anger, anger expression-in & -out, & anger expression. Zeeck, Hartmann, Buchholz, & Herzog (2005) – middle phase drop-outs only	
Low self-directedness	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002)	

Lower levels of co-operation	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002)
Higher levels of hostility	Van Strien, van der Ham & van Engeland (1992) Zeeck, Hartmann, Buchholz, & Herzog (2005) – middle phase drop-outs only
High levels of aggression	Franzen, Backmund & Gerlinghoff (2004)
High levels of extraversion	Franzen, Backmund & Gerlinghoff (2004)
Low levels of inhibitedness	Franzen, Backmund & Gerlinghoff (2004)
Higher hopelessness	Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000)
Greater feelings of alienation/ psychoticism	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995)
Greater harm avoidance	Fassino, Abbate-Daga, Piero & Rovera (2002)
Greater levels of expressiveness	Zeeck, Hartmann, Buchholz, & Herzog (2005)

Levels of inadequacy	Van Strien, van der Ham & van Engeland (1992)
Pre-treatment stage of change	Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999)
Measures of self-concept	Coker, Vize, Wade & Cooper (1993)
Perfectionism	McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004)
Rigidity	Van Strien, van der Ham & van Engeland (1992)
Egotism	Van Strien, van der Ham & van Engeland (1992)
Anxiety	Clinton (1996)
Interoceptive awareness	McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004)
OCD	Zeeck, Hartmann, Buchholz, & Herzog (2005)

Table 6: Patients' comorbid characteristics influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Higher comorbid depression	Coker, Vize, Wade & Cooper (1993) Peake, Limbert & Whitehead (2005) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000) Woodside, Carter & Blackmore (2004)	Zeeck, Hartmann, Buchholz, & Herzog (2005)	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Franzen, Backmund & Gerlinghoff (2004) Kahn & Pike (2001) Surgenor, Maguire & Beumont (2004) Clinton (1996)
Greater maturity fears at admission	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Woodside, Carter & Blackmore (2004) Zeeck, Hartmann, Buchholz, & Herzog (2005) - moderate effect		McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004)
Greater episodes of self-harm/self-injurious behaviour	Coker, Vize, Wade & Cooper (1993) Favaro & Santonastaso (1998) – impulsive behaviours only Favaro & Santonastaso (2000) – compulsive & impulsive behaviours together		Surgenor, Maguire & Beumont (2004)
Higher dissociative symptomatology	Waller (1997)		

Higher levels of borderline psychopathology	Waller (1997)	
Meet diagnosis of BPD	Coker, Vize, Wade & Cooper (1993)	
Comorbid Personality Disorder		Vandereycken & Pierloot (1983)
		Zeeck, Hartmann, Buchholz, & Herzog (2005)
Psychological distress & symptom severity		Kahn & Pike (2001) – SCL-90-R
		Mahon, Winston, Palmer & Harvey (2001) – SCL-90-R
Substance misuse/dependency		Surgenor, Maguire & Beumont (2004)
		Zeeck, Hartmann, Buchholz, & Herzog (2005)
Addiction		Vandereycken & Pierloot (1983)
Kleptomania		Vandereycken & Pierloot (1983)

Table 7: Patients' eating disorder symptomatology influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Longer duration of illness	Coker, Vize, Wade & Cooper (1993) Probst, Vandereycken, van Coppenolle & Pieters (1999) Vandereycken & Pierloot (1983) – between late phase 1 & phase 2	Gallop, Kennedy & Stern (1994)	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Franzen, Backmund & Gerlinghoff (2004) Kahn & Pike (2001) Surgenor, Maguire & Beumont (2004) Van Strien, van der Ham & van Engeland (1992) Woodside, Carter & Blackmore (2004) Zeeck, Hartmann, Buchholz, & Herzog (2005)

Lower BMI at admission	Surgenor, Maguire & Beumont (2004)	Probst, Vandereycken, van Coppenolle & Pieters (1999) – weight Woodside, Carter & Blackmore (2004)	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Franzen, Backmund & Gerlinghoff (2004) Kahn & Pike (2001) McKisack & Waller (1996) Peake, Limbert & Whitehead (2005) Waller (1997)
Diagnosis	Kahn & Pike (2001) - moderate effect – AN binge-purge sub-type Surgenor, Maguire & Beumont (2004) – AN purging sub-type Woodside, Carter & Blackmore (2004) – AN binge-purge subtype		Clinton (1996) Fassino, Abbate-Daga, Piero & Rovera (2002) Favaro & Santonastaso (1998) Franzen, Backmund & Gerlinghoff (2004) Peake, Limbert & Whitehead (2005) Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) – trend towards greater drop-out among BN & EDNOS Van Strien, van der Ham & van Engeland (1992) Waller (1997) Zeeck, Hartmann, Buchholz, & Herzog (2005)

Greater drive for thinness	Fassino, Abbate-Daga, Piero & Rovera (2002) McKisack & Waller (1996)	Surgenor, Maguire & Beumont (2004)
Greater frequency of binge-eating	Franzen, Backmund & Gerlinghoff (2004)	Coker, Vize, Wade & Cooper (1993) Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) McKisack & Waller (1996) Peake, Limbert & Whitehead (2005) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000) Surgenor, Maguire & Beumont (2004) Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999) Vandereycken & Pierloot (1983) Waller (1997) Woodside, Carter & Blackmore (2004)

Greater levels of vomiting	Franzen, Backmund & Gerlinghoff (2004)	Coker, Vize, Wade & Cooper (1993) McKisack & Waller (1996) Surgenor, Maguire & Beumont (2004) Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999) Vandereycken & Pierloot (1983) Waller (1997)
Higher laxative misuse	Coker, Vize, Wade & Cooper (1993)	Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Franzen, Backmund & Gerlinghoff (2004) Surgenor, Maguire & Beumont (2004) Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999)
Large range in weight fluctuation	Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000)	Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Coker, Vize, Wade & Cooper (1993)
Greater body shape dissatisfaction/perception	McKisack & Waller (1996)	Coker, Vize, Wade & Cooper (1993) Kahn & Pike (2001) Surgenor, Maguire & Beumont (2004)
Greater weight loss	Vandereycken & Pierloot (1983) – early v completers	Van Strien, van der Ham & van Engeland (1992) Vandereycken & Pierloot (1983) - % body weight

Older age of onset	Vandereycken & Pierloot (1983) – phase 1 v phase 2		Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Kahn & Pike (2001) Woodside, Carter & Blackmore (2004)
Higher levels of BN cognitions/psychopathology	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000)		Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995)
Higher levels of restrictive behaviours	McKisack & Waller (1996)	Woodside, Carter & Blackmore (2004)	
Lower pre-occupation with food	Van Strien, van der Ham & van Engeland (1992)		
Lower pre-occupation with appearance	Van Strien, van der Ham & van Engeland (1992)		
Greater weight concern	Woodside, Carter & Blackmore (2004)		
Greater shape concern	Agras, Crow, Halmi, Mitchell, Wilson & Kraemer (2000)		
Increased restriction of fluids at admission	Surgenor, Maguire & Beumont (2004)		
Lower severity of BN symptoms	Mahon, Winston, Palmer & Harvey (2001)		

More severe perceived BN characteristics	Waller (1997)	
Lower desired weight	Coker, Vize, Wade & Cooper (1993)	
Shorter duration of amenorrhea	Vandereycken & Pierloot (1983) – early v late phase 1 & completers	
Levels of purging		Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Steel, Jones, Adcock, Clancy, Bridgford-West & Austin (2000) Woodside, Carter & Blackmore (2004)
Excessive exercise		Fassino, Abbate-Daga, Piero, Leombruni & Rovera (2003) Fassino, Abbate-Daga, Piero & Rovera (2002) Surgenor, Maguire & Beumont (2004)
Minimum ever weight		Woodside, Carter & Blackmore (2004)
Maximum ever weight		Woodside, Carter & Blackmore (2004)
Self-reported BN symptoms		Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow (1995) Clinton (1996) Mahon, Winston, Palmer & Harvey (2001)
Diuretic Misuse		Surgenor, Maguire & Beumont (2004)
AN Attitudes		Kahn & Pike (2001)

ED psychopathology	Clinton (1996)
Lowest ever BMI	Kahn & Pike (2001)
Age of menarche	Vandereycken & Pierloot (1983)

Table 8: Therapist & therapy factors influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/ completion	Lower (likelihood of) dropping out – greater engagement/ completion	No significant difference
Type of therapy			
Behaviour therapy, medical & non-specific treatment	Vandereycken & Pierloot (1983) – behaviour therapy	Vandereycken & Pierloot (1983) – medical or non-specific treatment	
CBT, interpersonal, psychodynamic & family-based therapies			Clinton (1996)
CBT, medication or combination			Halmi, Agras, Crow, Mitchell, Wilson, Bryson & Kraemer (2005)
CBT and IPT			Agras, Walsh, Fairburn, Wilson & Kraemer (2000)
Self-help treatments (minimal, face-to-face & telephone) & waiting list controls			Palmer, Birchall, McGrain & Sullivan (2002)
Guided self-help & medication			Walsh, Fairburn, Mickley, Sysko & Parides (2004)

Guided self-help & CBT		Thiels (2005)
CBT and MET		Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999)
CBT, BT & IPT		Fairburn, Jones, Pelever, Carr, Solomon, O'Connor, Burton & Hope (1991)
IPT & medical management		Mitchell, Halmi, Wilson, Agras, Kraemer & Crow (2002)
Focal Psychoanalytic psychotherapy, CAT, FT & routine treatment		Dare, Eisler, Russell, Treasure & Dodge (2001)
Out-patient & day-patient		Peake, Limbert & Whitehead (2005)
Therapy Factors		
Greater discrepancies between patients' expectations & treatment provided	Walsh, Fairburn, Mickley, Sysko & Parides (2004)	

Waiting time	Mahon, Bradley, Harvey, Winston & Palmer (2001) – engagement Mahon, Winston, Palmer & Harvey (2001) – engagement
Therapist Factors	
Therapists' level of training	Clinton (1996)
Change of therapist between assessment & treatment	Clinton (1996)
Therapists' gender	Clinton (1996)
Therapists' years of experience	Clinton (1996)
Therapists' profession	Clinton (1996)
Specific therapist	Clinton (1996)

Table 9: Patient-therapist factors influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/completion	No significant difference
Higher levels of dissimilarity of frames of reference between patients & therapists	Clinton (1996)		
Lower levels of patient perceived therapeutic alliance	Gallop, Kennedy & Stern (1994)		Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999)
Therapist perceived therapeutic alliance			Gallop, Kennedy & Stern (1994) Treasure, Katzman, Schmidt, Troop, Todd & de Silva (1999)

Table 10: Social, geographical & physical factors influencing drop-out

Factor	Greater (likelihood of) dropping out – lower engagement/completion	Lower (likelihood of) dropping out – greater engagement/completion	No significant difference
Difference between sites	Agras, Walsh, Fairburn, Wilson & Kraemer (2000)		Mitchell, Halmi, Wilson, Agras, Kraemer & Crow (2002) Walsh, Fairburn, Mickley, Sysko & Parides (2004)
Residence in city of clinic			Surgenor, Maguire & Beumont (2004)
Distance travelled to clinic			Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby (2005) Van Strien, van der Ham & van Engeland (1992)

7 References

Agras, W. S., Crow, S. J., Halmi, K. A., Mitchell, J. E., Wilson, G. T., & Kraemer, H. C. (2000). Outcome predictors for the cognitive behavior treatment of bulimia nervosa: Data from a multisite study. *American Journal of Psychiatry, 157*, 1302-1308.

Agras, W. S., Walsh, T., Fairburn, C. G., Wilson, G. T., & Kraemer, H. C. (2000). A Multi-centre comparison of cognitive-behavioural therapy and interpersonal psychotherapy for bulimia nervosa. *Archives of General Psychiatry, 57*, 459-466.

Bacaltchuk, J., Trefiglio, R. P., Oliveira, I. R., Hay, P., Lima, M. S., & Mari, J. J. (2000). Combination of antidepressants and psychological treatments for bulimia nervosa: A systematic review. *Acta Psychiatrica Scandinavica, 101*, 256-267.

Baekeland, F., & Lundwall, L. (1975). Dropping out of treatment: a critical review. Psychological Bulletin, 82, 738-783.

Bara-Carril, N., Williams, C. J., Pombo-Carril, M. G., Reid, Y., Murray, K., Aubin, S., Harkin, P. J. R., Treasure, J., & Schmidt, U. (2004). A preliminary investigation into the feasibility and efficacy of a CD-ROM-based cognitive-behavioural self-help intervention for bulimia nervosa. *International Journal of Eating Disorders, 35*, 538-548.

Baran, S. A., Weltzin, T. E., & Kaye, W. H. (1995). Low discharge weight and outcome in anorexia nervosa. *American Journal of Psychiatry, 152*, 1070-1072.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Achives of General Psychiatry, 4*, 53-63

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology, 42*, 861-865.

Beumont, P., Russell, J., & Touyz, S. (1993). Treatment of anorexia nervosa. The Lancet, 341, 1635-1640.

Blouin, J., Schnarre, K., Carter, J., Blouin, A., Tener, L., Zuro, C. & Barlow, J. (1995). Factors affecting dropout rate from cognitive-behavioural group treatment for bulimia nervosa. *International Journal of Eating Disorders, 17*, 323-329.

Button, E. J., Marshall, P., Shinkwin, R., Black, S. H., & Palmer, R. (1997). One hundred referrals to an eating disorder service: Progress and service consumption over a 2-4 year period. *European Eating Disorders Review, 5*, 47-63.

Clinton, D. N. (1996). Why do eating disorder patients drop out? *Psychotherapy and Psychosomatics, 65*, 29-35.

Coker, S., Vize, C., Wade, T., & Cooper, P. J. (1993). Patients with bulimia nervosa who fail to engage in cognitive behaviour therapy. *International Journal of Eating Disorders, 13*, 35-40

Coldham, E. L., Addington, J., & Addington, D. (2002). Medical adherence of individuals with a first episode of psychosis. *Acta Psychiatrica Scandinavia, 106*, 286-290.

Cox, G. L., & Merkel, W. T. (1989). A qualitative review of psychosocial treatments for bulimia. *Journal of Nervous and Mental Disease, 177*, 77-84.

Craig, A. R., Franklin, J. A., & Andrews, G. (1984). A scale to measure locus of control of behaviour. *British Journal of Medical Psychology, 57*, 173-180.

Dare, C., Eisler, I., Russell, G., Treasure, J., & Dodge, L. (2001). Psychological therapies for adults with anorexia nervosa. *British Journal of Psychiatry, 178*, 216-221.

Eivors, A., Button, E., Warner, S., & Turner, K. (2003). Understanding the experience of drop-out from treatment for anorexia nervosa. *European Eating Disorders Review, 11*, 90-107.

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. *Behaviour Research and Therapy, 41*, 509-528.

Fairburn, C. G., & Harrison, P. J. (2003). Eating Disorders. *The Lancet, 361*, 407-416.

Fairburn, C., Jones, R., Peveler, R., Carr, S. J., Solomon, R. A., O'Connor, M. E., Burton, J., & Hope, R. A. (1991). Three psychological treatments for bulimia nervosa: A comparative trial. *Archives of General Psychiatry, 48*, 463-469.

Fairburn, C., Jones, R., Peveler, R., Hope, R., & O'Connor, M. (1993). Psychotherapy and bulimia nervosa: The longer-term effects of interpersonal

psychotherapy, behaviour therapy, and cognitive behaviour therapy. *Archives of General Psychiatry, 50*, 419-428.

Fassino, S., Abbate-Daga, G., Piero, A., Leombruni, P., & Rovera, G. G. (2003). Dropout from brief psychotherapy within a combination treatment in bulimia nervosa: role of personality and anger. *Psychotherapy and Psychosomatics, 72*, 203-210.

Fassino, S., Abbate-Daga, G. A., Piero, A., & Rovera, G. G. (2002). Drop-out from brief psychotherapy in anorexia nervosa. *Psychotherapy and Psychosomatics, 71*, 200-206.

Favaro, A., & Santonastaso, P. (1998). Impulsive and compulsive self-injurious behavior in bulimia nervosa: Prevalence and psychological correlates. *The Journal of Nervous and Mental Disorders, 186*, 157-165.

Favaro, A., & Santonastaso, P. (2000). Self-injurious behaviour in anorexia nervosa. *Journal of Nervous and Mental Disorders, 188*, 537-542.

Fettes, P. A., & Peters, J. M. (1992). A meta-analysis of group treatments for bulimia nervosa. *International Journal of Eating Disorders, 11*, 97-110.

Franzen, U., Backmund, H., & Gerlinghoff, M. (2004). Day treatment group programme for eating disorders: Reasons for drop-out. *European Eating Disorders Review, 12*, 153-158.

Gallop, R., Kennedy, S. H., & Stern, D. (1994). Therapeutic alliance on an inpatient unit for eating disorders. *International Journal of Eating Disorders, 16*, 405-410.

Garfield, S. L. (1994). Research on client variables in psychotherapy. In A. E. Bergin, & S. L. Garfield (Eds.) *Handbook of psychotherapy and behaviour change* (pg 190-228). New York, Chichester: John Wiley & Sons.

Garner, D. M. (1985). Iatrogenesis in anorexia nervosa and bulimia nervosa. *International Journal of Eating Disorders, 4*, 701-726.

Grilo, C. M., Devlin, M. J., Cachelin, F. M., & Yanovski, S. Z. (1997). Report on the National Institute of Health (NIH) Workshop on the Development of Research Priorities in Eating Disorders. Psychopharmacology Bulletin, 33, 321-333.

Halmi, K. A., Agras, S., Crow, S., Mitchell, J., Wilson, G. T., Bryson, S. W., & Kraemer, H. C. (2005). Predictors of treatment acceptance and completion in anorexia nervosa: Implications for future study designs. *Archives of General Psychiatry, 62*, 776-781.

Johnson, C. L., Tobin, D. L., & Dennis, A. B. (1990). Differences in treatment outcome between borderline and nonborderline bulimics at one year follow-up. *International Journal of Eating Disorders, 9*, 617-628.

Kahn, C., & Pike, K. M. (2001). In search of predictors of dropout from inpatient treatment for anorexia nervosa. *International Journal of Eating Disorders, 30*, 237-244.

Kazdin, A. E., & Mazurik, J. L. (1994). Dropping out of child psychotherapy: Distinguishing early and late dropouts over the course of treatment. *Journal of Consulting and Clinical Psychology, 5*, 1069-1074.

Krupnick, J. L., Sotsky, S. M., Simmens, S., Moyer, J., Elkin, I., Watkins, J., & Pilkonis, P. A. (1996). The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: findings in the National Institute of Mental Health treatment of depression collaborative research program. *The Journal of Consulting and Clinical Psychology, 64*, 532-539.

Lambert, M. J. (1992). Implications of outcome research for psychotherapy integration. In J. C. Norton & M. R. Goldstien (Eds.), *Handbook of psychology integration* (pp. 94-129). New York: Basic Books.

Mahon, J. (2000). Dropping out from psychological treatment for eating disorders: What are the issues? *European Eating Disorders Review, 8*, 198-216.

Mahon, J., Bradley, S. N., Harvey, P. K., Winston, A. P., & Palmer, R. L. (2001). Childhood trauma has dose-effect relationship with dropping out of treatment for bulimia nervosa: A replication. *International Journal of Eating Disorders, 30*, 138-148.

Mahon, J., Winston, A. P., Palmer, R. L., & Harvey, P. K. (2001). Do broken relationships in childhood related to bulimic women breaking off psychotherapy in adulthood? *International Journal of Eating Disorders, 29*, 139-149.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*, 438-450.

McKisack, C., & Waller, G. (1996). Why is attendance variable at groups for women with bulimia nervosa? The role of eating psychopathology and other characteristics. *International Journal of Eating Disorders, 20*, 205-209.

McKisack, C., & Waller, G. (1997). Factors influencing the outcome of group psychotherapy for bulimia nervosa. *International Journal of Eating Disorders, 22*, 1-13.

Mitchell, J. E., Halmi, K., Wilson, G. T., Agras, W. S., Kraemer, H., & Crow, S. (2002). A randomized secondary treatment study of women with bulimia nervosa who fail to respond to CBT. *International Journal of Eating Disorders, 32*, 271-281.

Palmer, R. L., Birchall, H., McGrain, L., & Sullivan, V. (2002). Self-help for bulimic disorders: A randomised controlled trial comparing minimal guidance with face-to-face or telephone guidance. *British Journal of Psychiatry, 181*, 230-235.

Peake, K. J., Limbert, C., & Whitehead, L. (2005). Gone, but not forgotten: An examination of the factors associated with dropping out from treatment of eating disorders. *European Eating Disorders Review, 13*, 330-337.

Pekarik, G. (1983). Follow-up adjustment of outpatient dropouts. *American Journal of Orthopsychiatry, 52*, 501-511.

Pike, K. M. (1998). Long-term course of anorexia nervosa: Response, relapse, remission, and recovery. *Clinical Psychology Review, 18*, 447-475.

Polivy, J., & Federoff, I. (1997). Group Psychotherapy. In D. M. Garner & P. E. Garfinkel (Eds.) *Handbook of treatment for eating disorders* (2nd Ed, pp. 462-475). New York: Guildford Press.

Probst, M., Vandereycken, W., van Coppenolle, H., & Pieters, G. (1999). Body experience in eating disorders before and after treatment: A follow-up study. *European Psychiatry, 14*. 333-340.

Rossiter, E. M., Agras, W. S., Telch, C. F., & Schneider, J. A. (1993). Cluster B personality disorder characteristics predict outcome in the treatment of bulimia nervosa. *International Journal of Eating Disorders, 13*. 349-357.

Steel, Z., Jones, J., Adcock, S., Clancy, R., Bridgford-West, L., & Austin, J. (2000). Why the high rate of dropout from individualized cognitive-behavior therapy for bulimia nervosa? *International Journal of Eating Disorders, 28*, 209-214.

Steinhausen, H-C. (2002). The outcome of anorexia nervosa in the 20th century. *American Journal of Psychiatry, 159*. 1284-1293.

Strober, M., Freeman, R., & Morrell, W. (1997). The long-term course of sever anorexia nervosa in adolescents: Survival analysis of recovery, relapse, and outcome predictors over 10-15 years in a prospective study. *International Journal of Eating Disorders, 22*. 339-360.

Surgenor, L. J., Maguire, S., & Beumont, P. J. V. (2004). Drop-out from inpatient treatment for anorexia nervosa: Can risk factors be identified at point of admission? *European Eating Disorders Review, 12*. 94-100.

Swan-Kremeier, L. A., Mitchell, J. E., Twardowski, T., Lancaster, K., & Crosby, R. S. (2005). Travel distance and attrition in outpatient eating disorder treatment. *International Journal of Eating Disorders, 38*, 367-370.

Thiels, C. (2005). Guided self-change for bulimia. *British Journal of Psychiatry, 187*, 188-196.

Thiels, C., Schmidt, U., Treasure, J., & Garthe, R. (2003). Four-year follow-up of guided self-change for bulimia nervosa. *Eating & Weight Disorders, 8*, 212-217.

Treasure, J. L., Katzman, M., Schmidt, U., Troop, N., Todd, G., & de Silva, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing motivation enhancement therapy and cognitive behavioural therapy. *Behaviour Research and Therapy, 37*, 405-418.

Treasure, J., & Schmidt, U. (2004). Anorexia nervosa. *Clinical Evidence, 12*, 1-3.

van Strien, D. C., van der Ham, T., & van Engeland, H. (1992). Drop out characteristics in a follow-up study of 90 eating-disordered patients. *International Journal of Eating Disorders, 12*, 341-343.

Vandereycken, W., & Meermann, R. (1992). The significance of follow-up investigations. In *The Course of Eating Disorders: Long-term follow-up studies of anorexia and bulimia nervosa*. Springer-Verlag: Berlin.

Vandereycken, W., & Pierloot, R. (1983). Drop-out during in-patient treatment of anorexia nervosa: A clinical study of 133 patients. *British Journal of Medical Psychology, 56*, 145-156.

Vervaet, M., van Heeringen, C., & Audenaert, K. (2004). Personality-related characteristics in restricting versus binging and purging eating disordered patients. *Comprehensive Psychiatry, 45*, 37-43.

Vitousek, K., Watson, S., & Wilson, G. (1998). Enhancing motivation for change in treatment-resistant eating disorders. *Clinical Psychology Review, 18*, 391-420.

Waller, G. (1997). Drop-out & failure to engage in individual outpatient cognitive behaviour therapy for bulimic disorders. *International Journal of Eating Disorders, 22*, 35-41.

Waller, G., Sines, J., Meyer, C., Foster, E., & Skelton, A. (2007). Narcissism and narcissistic defences in the eating disorders. *International Journal of Eating Disorders, 40*, 143-148.

Walsh, B. T., Fairburn, C. G., Mickley, D., Sysko, R., & Parides, M. K. (2004). Treatment of bulimia nervosa in a primary care setting. *American Journal of Psychiatry, 161*, 556-561.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice, 24*, 190-195.

Woodside, D. B., Carter, J. C., & Blackmore, E. (2004). Predictors of premature termination of inpatient treatment for anorexia nervosa. *American Journal of Psychiatry, 161*, 2277-2281.

Zeeck, A., Hartmann, A., Buchholz, C., & Herzog, T. (2005). Drop outs from in-patient treatment of anorexia nervosa. *Acta Psychiatrica Scandinavica, 111*. 29-37.

PART 2: EMPIRICAL PAPER

NARCISSISM IN THE EATING DISORDERS: IMPACT ON TREATMENT ENGAGEMENT AND DROP-OUT

1 Abstract

Introduction: Dropping out of psychological treatment of the eating disorders is a common phenomenon. Many factors have been examined in relation to lack of adherence to treatment, but few consistent findings have been noted. Narcissism has been noted as a potential factor that could influence drop-out (Waller, Sines, Meyer, Foster & Skelton, 2007) but has yet to be examined thoroughly. This study aimed to investigate the role of narcissism in the eating disorders and the impact it has on adherence to psychological treatment. Method: Forty-one patients with eating disorders receiving outpatient cognitive-behavioural therapy completed measures assessing core narcissism and the narcissistic defences, eating disorder psychopathology, and core beliefs. Attendance at sessions was also recorded. Results: Patients with higher levels of eating disorder psychopathology were found to have higher levels of core narcissism and the 'martyred' defence style. Associations between core narcissism and the martyred defence style, and core beliefs were found. The presence of the narcissistically abused personality defence style was also found to increase the likelihood of dropping out of treatment. Discussion: The martyred form of narcissism appears to have a significant role in the eating disorders. The strengths and limitations and the clinical implications of this research are discussed and future directions for research suggested.

2 Introduction

2.1 Eating Disorders

The eating disorders are characterised by an individual's morbid preoccupation with shape and weight and by maladaptive eating behaviours and attitudes. They occur predominantly in Western society, and the majority of cases are young women. Point prevalence rates for anorexia nervosa are 280 per 100,000 young females and 1,000 per 100,000 for bulimia nervosa (Hoek, 2002).

The causes of eating disorders are complex and still poorly understood (Fairburn & Harrison, 2003). Many risk factors for the disorders have been suggested. These include family enmeshment and conflict avoidance (Crisp, Hsu, Harding & Hartshorn, 1980), impulsivity (Fahy & Eisler, 1993), and the preoccupation of society with slimness and fitness (Dionne, Davis, Fox & Gurevich, 1995). A genetic predisposition has also been suggested (Lilenfeld et al., 1998). Further to this, individuals suffering from eating disorders are typically ambivalent to change, and as a result are seen as difficult to treat.

2.2 Treatment of the Eating Disorders

The evidence base for effective treatments is variable and sparse. A number of psychological interventions have been shown to be successful with bulimic disorders, and more specifically cognitive-behaviour therapy has been suggested as the treatment of choice (National Institute of Clinical Excellence; NICE, 2004). However, the findings for anorexia nervosa are less clear-cut. Furthermore, these findings are based only on those individuals who completed treatment. Of those patients who are referred for treatment of an eating disorder, a large number do not complete treatment. Waller et al. (2005) found that only a quarter of referrals resulted in the successful completion of treatment. Kazdin and Mazurik (1994)

suggest that patients who do not complete treatment should be differentiated from those who do, due to differing social and psychological profiles.

Data from clinical trials of treatment for the eating disorders show that between 5 and 50 percent of patients do not complete treatment (Button, Marshall, Shinkwin, Black & Palmer, 1997; Mahon, 2000; Mitchell, 1991; Vandereycken & Pierloot, 1983). Research trials often go to great lengths to ensure that patients complete treatment. Therefore, levels of drop-out and failure to engage are likely to be higher in general clinical practice. Studies of drop out and failure to engage show that between 14 and 27 percent of patients with an eating disorder do not take up treatment that is offered to them, and of those who do accept treatment, between 30 and 46 percent of patients drop out of treatment before it is complete (e.g., Halmi et al., 2005; Mitchell, 1991; Waller, 1997).

Several possible explanations have been put forward to explain the high numbers of patients who fail to engage in or drop out of treatment. Research has examined the possible associations between drop-out and patient-related factors, issues in the patient/therapist relationship, therapy-based factors, and social, geographical and physical variables. However, despite the relatively high number of variables that have been studied, no consistent or robust results have been found for any of the factors. This problem in identifying consistent factors across studies is partly due to differences in definitions and methodology. However, there are also issues about the factors that are studied (see *Part 1: Literature review*). For example, there has been a large focus on patient-related variables, particularly eating disorder symptomatology, to the detriment of other areas. There has been comparatively little consideration of the role of personality characteristics, and this sparse literature has focused almost exclusively on the features of borderline personality disorder (e.g., Waller, 1997). While this aspect of personality is important in understanding the

intra- and interpersonal issues that are likely to be relevant to drop-out, it is also important to consider other aspects of personality that are potentially relevant in that way. Narcissistic features are particularly worth considering, as they have been suggested to have an impact on patient engagement (Waller, Sines et al., 2007).

2.3 Narcissism and the Narcissistic Defences

Narcissism is characterised by unconscious deficits in self-esteem, lack of empathy, and self-preoccupation. In the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994), narcissistic personality disorder is defined in terms of a number of features. These include, an exaggerated sense of self-importance; preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love; the belief that one is "special" and can only be understood by, or should associate with, other special or high-status people; requiring excessive admiration; a sense of entitlement; selfishly taking advantage of others to achieve one's own ends; lack of empathy; envy of others or the belief that others are envious of them; and displaying arrogant, haughty, patronizing, or contemptuous behaviours or attitudes. To receive a diagnosis, the individual needs to display at least five of these features by early adulthood.

This definition, however, is based on the core pathology of narcissism, and does not account for all features that are relevant to this aspect of personality pathology. Miller (1981; 1984; 1985) has suggested that, along with this *core narcissism* (tendencies towards undifferentiated and exploitative interpersonal relationships, entitlement and craving to be in the limelight), there are two other mechanisms of pathological narcissism that arise when narcissism is excessively repressed. She termed these *narcissistic defences*. The narcissistic defences act to protect an individual's self-esteem and hide their inherent narcissism, and when used to excess can become pathological (O'Brien, 1987). It is thought that these defence

mechanisms are employed by individuals in order to defend against feelings of low self-esteem and vulnerability (Kopelman & Mullins, 1992; Miller, 1992).

The first of these mechanisms is termed 'Narcissistically Abused Personality', which is characterised by a tendency to experience problems with belongingness, to look for the approval of others for self-validation and to consider others' needs as being more important than one's own (while resenting those others having their needs prioritised). It can be seen as a 'poor me' defence and can place an individual in a martyred position in relationships with others.

The second mechanism is 'Poisonous Pedagogy', which is characterised by the unconscious need to control others through rigid and aggrandised perfection of one's own virtues (e.g., "I will tell you what you should do..."). This can be seen as a 'bad you' defence, placing individuals in a critical position in their relationships with others. It has been suggested that understanding the different defensive styles that are associated with the basic narcissistic disturbance might explain varying behavioural expressions of the same underlying problem (Brunton, Lacey & Waller, 2005).

2.4 Narcissism and the Eating Disorders

Anecdotally and in the psychoanalytic literature, narcissism has long been linked to the eating disorders. Anorexia nervosa and bulimia nervosa have been thought of as a narcissistic overinvestment in body image and control of eating behaviours. Clinical observations of patients with bulimia nervosa report traits of narcissistic personality disorder (Davis & Marsh, 1986; Johnson & Connors, 1987; Masterson, 1995; Mogul, 1980; Sands, 2000; Yarrock, 1993). Indeed, Masterson (1995) has described bulimia nervosa as the 'closet narcissistic personality disorder'.

Studies of non-clinical women have yielded mixed results with regards to the association of narcissism with distorted eating attitudes. Davis and colleagues (Davis, Claridge & Cerullo, 1997a; 1997b) found that women's sense of self-worth about their bodies was significantly related to their levels of narcissism and suggest that women high in maladaptive narcissism may place emphasis on the body as a source of self-esteem. However, a longitudinal cohort study found that those individuals who received a diagnosis of narcissistic personality disorder at age 22 were not at an elevated risk for eating disorders at age 33, when compared to those who had not received this diagnosis (Johnson, Cohen, Kasen & Brook, 2006).

Studies also yield mixed results about the presence of narcissism in patients with eating disorders. Steiger and colleagues (McLaren, Gauvin & Steiger, 2001; Steiger, Jabalpurlawa, Champagne & Stotland, 1997; Steiger, Stotland, Ghadirian & Whitehead, 1995) were amongst the first to study empirically the relationship between narcissism and the eating disorders. They found that eating disorder patients reported elevated levels of narcissism compared to clinical and non-clinical controls. Narcissism was also able to differentiate patients with both active and remissive eating disorders from non-clinical controls (Lehoux, Steiger & Jabalpurlawa, 2000), suggesting that narcissistic personality traits may be a stable feature common in patients with bulimia nervosa, present after the patients have recovered from the eating disorder. When considering a two-factor model of development of the eating disorders, McLaren et al. (2001) found that eating-related and general psychopathology have independent importance in explaining deviant eating outcomes. Specifically, narcissism was found to interact with body esteem, both detrimentally and protectively, with high levels of narcissism and low levels of body esteem likely to result in some level of eating disturbance. This finding suggests that high levels of narcissism in the presence of vulnerability factors (such

as a society that values thinness) may result in the development of an eating disorder.

On the other hand, no differences have been reported in rates of narcissism between the general and eating-disordered populations in research by other groups (Kennedy, McVey & Katz, 1990; Ruderman & Grace, 1987; 1988). Karwautz et al. (2001) found that despite patients with anorexia nervosa reporting high narcissistic gain from their illness, they did not show the signs of classic narcissistic self described by Steiger and colleagues. However, this variation in results might be accounted for by the fact that many studies did not examine the full scope of pathological narcissism. Often, the measures of narcissism used assess only the presenting symptomatology (i.e., grandiosity) and overlook the underlying constructs (i.e., feelings of vulnerability and low self-esteem). Steinberg and Shaw (1991) comment on this difficulty, stating that it is important to consider how narcissism is defined and measured when reviewing the literature. When considering the underlying constructs of narcissism, these authors report a relationship between bulimia nervosa and narcissistic dynamics, shown by patients having lower self-esteem and greater difficulties with self-soothing.

When breaking down the features of narcissism, higher levels of core narcissism and narcissistically abused personality are found in patients with eating disorders when compared to non-clinical controls (Sines, Waller, Meyer & Wigley, under consideration; Waller, Sines et al., 2007). In a non-clinical population, narcissistic personality disorder traits are positively associated with bulimic eating attitudes and narcissistically abused personality is associated with restrictive eating attitudes and low body mass index (Brunton et al., 2005). In a clinical population, narcissistically abused personality was associated with restraint, eating concern, body shape concern and body weight concern, whilst poisonous pedagogy was associated only

with restrictive eating psychopathology (Waller, Sines et al., 2007). The authors use these findings to suggest that, in the future, narcissistic defences should be the focus of research and clinical attention, rather than core narcissism. Clinically, an understanding of the core beliefs underlying core narcissism and the narcissistic defence styles may provide a focused target for treatment.

2.5 Narcissism and Core Beliefs

When employing a cognitive-behavioural schema-focused approach to treatment, Waller, Kennerley and Ohanian (2007) and Young, Klosko and Weishaar (2003) stress the role core beliefs play in underpinning personality characteristics. Core beliefs, or schemas, are unconditional beliefs about the self, world or others, usually developed in childhood and elaborated upon during lifetime. Waller, Kennerley and Ohanian (2007) suggest that core beliefs can be separated into central beliefs (e.g., fear of abandonment) and compensatory beliefs (e.g., self-sacrifice), with the compensatory beliefs providing a means of reducing the impact of the central belief on an individual.

Investigating the relationship between narcissism and core beliefs in people with eating disorders, Sines et al. (under consideration) found positive correlations between levels of pathological core beliefs, core narcissism and narcissistic defences. Specifically, they found that higher levels of core narcissism were associated with higher core beliefs of entitlement, unrelenting standards, and social isolation. Those who were high in levels of poisonous pedagogy (i.e. more likely to be critical of others) had core beliefs that they were important and successful and that they needed to ensure that others meet their high standards by educating them (e.g. higher levels of entitlement, unrelenting standards, self-sacrifice and lower levels of emotional deprivation and failure to achieve beliefs). On the other hand patients who were high in levels of narcissistically abused personality (i.e., those

experiencing problems with belongingness and beliefs that others' needs are more important than their own) had a negative perception of the self and of the support that they could expect from others (e.g., increased levels of defectiveness and abandonment beliefs). These authors suggest that it may be these beliefs that need to be modified in order to alleviate the impact of core narcissism and narcissistic defences. However, whilst it is important to have treatment that is appropriately targeted, it is important to ensure that the patient is able to use therapy and remain in treatment for its duration.

2.6 Narcissism and Drop-out from Therapy

Wonderlich and Mitchell (2001) suggest that alongside personality's role in the development of an eating disorder, it can also have an impact on treatment. The presence of a personality disorder in a patient with a primary diagnosis of an eating disorder can be a negative prognostic indicator in treatment of the eating disorder (Johnson, Tobin & Dennis, 1990; Rossiter, Agras, Telch & Schneider, 1993; Saccomani, Savoini, Cirrincione, Vercellino & Ravera, 1998). Conversely, individuals who recover from eating disorders have lower rates of Cluster B disorders than reported in ill individuals (Wagner et al., 2006). However, there is little clear evidence on the subject of narcissistic personality disorder, which forms part of this cluster of personality disorders.

As with the eating disorders, narcissistic patients are notorious for being difficult to engage and treat. Narcissistic personality traits have been shown to interfere with therapy across a range of disorders (Beck, Freeman, Davis & Associates, 2004; Young et al., 2003). Sines, Waller, Meyer and Wigley (under consideration) suggest that core narcissism and narcissistic defences are highly likely to interfere with the development of effective working relationships. Their presence may result in treatment difficulties, as suggested changes in behaviour or thinking are likely to be

perceived as threats to an individual's self-esteem. Behaviours may be used to divert attention away from engaging in active goal-focused treatment. For example, patients may adopt either critical (poisonous pedagogy) or martyred (narcissistically abused personality) positions, depending on the defences they employ, with the aim of reducing threats to self-esteem that can arise during therapy. Further to this, the low motivation often found in patients with eating disorders may mean that patients drop out or give up on therapy if they are challenged. Narcissism has also been suggested as a possible factor that might contribute to patients with eating disorders dropping out or failing to engage in treatment (Waller, Sines et al., 2007).

Therefore, examining and understanding maladaptive narcissistic processes is potentially vital in allowing us to target treatment more effectively for individuals with eating disorder. If narcissism and its underlying belief system are relevant to drop-out, identifying such traits early will allow them to be included in case formulations, to shape treatment and facilitate a good working relationship, thus reducing the likelihood of drop-out.

2.7 Aims

This study aimed to be both a replication of previous work, considering the relationship between narcissism and the eating disorders, and an extension, to determine which aspects of narcissism are associated with engagement in and drop-out from treatment. Hypotheses 1 to 3 below examine the relationship between narcissism and narcissistic defences in the eating disorders, replicating the work conducted by Waller, Sines et al. (2007). Hypothesis 4 considers the relationship between narcissism and core beliefs, replicating the work of Sines et al. (under consideration). Hypotheses 5 and 6 begin to investigate the relationship between these variables and patients' adherence, or lack of adherence, to the psychological treatment of the eating disorders.

2.8 Hypotheses

1. Levels of core narcissism and of narcissistically abused personality defensive styles will be higher in patients with eating disorders than in non-clinical populations.
2. Higher levels of narcissistic defence styles and core narcissism will be associated with higher levels of eating disorder psychopathology.
3. Patients engaging in eating-disordered behaviours (such as bulimic episodes, vomiting, laxative misuse, excessive exercise, etc) will have higher levels of core narcissism and narcissistic defence styles than those who do not engage in such behaviours.
4. Patients with eating disorders who are high in pathological narcissism will be high in negative core beliefs.
5. Patients who drop out of treatment will have higher levels of eating disorder psychopathology than those who complete treatment.
6. When eating disorder psychopathology is controlled for, participants who drop out of treatment will have higher levels of core narcissism and narcissistic defence styles than those who complete treatment.

3 Method

3.1 Research Design

The study had a mixed comparative and correlational design, using cross-sectional and prospective data drawn from a clinical cohort.

3.2 Participants

Potential participants included all patients referred to a specialist eating disorder service who had received a diagnosis of an eating disorder at assessment and who were offered outpatient cognitive-behavioural therapy (CBT). Whilst other therapies (e.g., cognitive analytic therapy, systemic therapy) are offered within the service, the majority of patients referred receive CBT. Therefore the research was restricted to this group. Patients were excluded from taking part in the study if they were under the age of 18, had a learning disability, an active psychotic condition or severe physical illness. They were also excluded if they were detained under the Mental Health Act or receiving treatment other than CBT.

Data from Waller (1997), studying borderline personality disorder, were used to calculate power for this study. For the purpose of this study, two of the groups were combined (failed to engage, dropped out) resulting in a weighted average mean and standard deviation of 20.76 and 10.51 respectively. A large effect size of 1.214 was found. Using Cohen (1992), with an alpha set at 0.5 and for a power of 0.8, a sample size of 26 participants in each group was suggested for a t-test, 21 for an ANOVA and 34 for a regression analysis.

In total, 41 patients took part in the study. These consisted of 11 diagnosed with anorexia nervosa (ten of the restrictive subtype, one of the binge-purge subtype), 18 diagnosed with bulimia nervosa, and 12 with an eating disorder not otherwise specified (three with a diagnosis of atypical anorexia nervosa, seven with atypical bulimia nervosa and two with binge eating disorder). In line with the transdiagnostic approach to the eating disorders (Fairburn, Cooper & Shafran, 2003), these patients were grouped as one sample. Previous research (Sines et al., under consideration; Waller, Sines et al., 2007) supports this, finding no differences in narcissism and the narcissistic defences across eating disorder diagnoses. They had a mean age of

27.10 year (*sd* = 5.86, minimum = 17.90, maximum = 47.58) and a mean body mass index of 21.0 (*sd* = 5.77, minimum = 12.76, maximum = 42.83). Two of the patients were male.

3.2.1 Non-clinical participants. Scores of core narcissism and the narcissistic defences for the non-clinical participants was taken from Waller, Sines et al. (2007). They consisted of 70 women, with a mean age of 23.2 years (*sd* = 4.18) and a mean BMI of 22.9 (*sd* = 3.04), recruited from undergraduate populations and personal contacts.

3.3 Measures

Three measures were used to assess patients eating attitudes, narcissism and core beliefs.

3.3.1 Eating Disorder Examination – Questionnaire Version (EDE-Q; Fairburn & Beglin, 1994). The EDE-Q (Appendix 1) is a 36-item self-report questionnaire, designed to be completed within 15 minutes. It consists of four subscales: eating concern, shape concern, weight concern and dietary restraint. Information regarding behaviours associated with the eating disorders (e.g., episodes of bingeing, vomiting, laxative and diuretic misuse and excessive exercise) can also be obtained. The EDE-Q asks participants to consider their thoughts, feelings and behaviours over the last 28 days and rate them on a 7-point rating scale. Higher scores indicate higher levels of eating disorder psychopathology.

The EDE-Q is derived from the Eating Disorder Examination (EDE; Fairburn & Cooper, 1993). Replicable results between the EDE and EDE-Q have been found across eating-disordered, general clinical and non-clinical populations, with the exception of over-estimation of number of objective bulimic episodes that an

individual has experienced (Black & Wilson, 1996; Carter, Aime & Mills, 2001; Fairburn & Beglin, 1994; Wilfley, Schwartz, Spurrell & Fairburn, 1997). The questionnaire has been shown to have acceptable internal consistency (0.78 – 0.93) (Luce & Crowther, 1999; Mond, Hay, Rodgers, Owen & Beumont, 2004; Peterson et al., 2007) and good test-retest reliability (Luce & Crowther, 1999).

3.3.2 O'Brien Multiphasic Narcissism Inventory (OMNI; O'Brien, 1987; 1988). The OMNI (Appendix 2) is a 41-item self-report questionnaire assessing three dimensions of pathological narcissism: narcissistic personality, poisonous pedagogy and narcissistically abused personality. The narcissistic personality scale measures core narcissism (i.e., feelings of entitlement, grandiosity and exhibitionism). The poisonous pedagogy scale measures the defensive belief that one should control others ('bad you' narcissism). The narcissistically abused personality scale measures the defensive style of placing the needs of others before one's own ('poor me' narcissism). Participants respond either 'yes' or 'no' to questions. Higher scores indicate higher levels of narcissism.

The OMNI has been shown to be a reliable and valid measure of pathological narcissism in individuals with eating disorders (Waller, Sines et al., 2007), and in general clinical and non-clinical samples (Brunton et al., 2005, O'Brien, 1987; 1988). Factor structures have been consistent across both clinical and non-clinical populations (O'Brien, 1987; 1988) and the inventory has been shown to have adequate levels of internal consistency (Cronbach's alpha = 0.71 – 0.84), and test-retest reliability (0.71 – 0.74) (O'Brien, 1987, 1988). The measure also shows good construct validity (O'Brien, 1987, 1988). Only the narcissistic personality scale was found to correlate with the Narcissistic Personality Inventory (Raskin & Hall, 1979; 1981). Different patterns of correlation were also found between the OMNI

subscales and scores of neuroticism and extraversion, as measured by the Eysenck Personality Inventory (Eysenck & Eysenck, 1968; 1976).

3.3.3 Young Schema Questionnaire: Short Form Version 3 (YSQ-S3; Young, 2005). The YSQ-S3 is a 90-item self-report questionnaire measuring levels of core beliefs. Eighteen different core beliefs are examined in the questionnaire:

1. *Emotional deprivation* (a belief that one's desire for emotional support will not be met adequately by others);
2. *Abandonment/instability* (perceived instability or unreliability of those available for support and connection);
3. *Mistrust/abuse* (the belief that others will hurt or take advantage);
4. *Social isolation/alienation* (the feeling that one is isolated from the rest of the world or different from others);
5. *Defectiveness/unlovability* (the belief that one is defective or unlovable);
6. *Failure to achieve* (the belief that one has failed or will fail);
7. *Practical incompetence/dependence* (the belief that one is unable to handle everyday responsibilities on one's own);
8. *Vulnerability to harm/illness* (the exaggerated fear that catastrophe could happen anytime);
9. *Enmeshment/undeveloped self* (excessive emotional involvement with one or more significant others);
10. *Subjugation* (excessive surrendering of control to others because one feels coerced);
11. *Self-sacrifice* (excessive focus on meeting the needs of others, at the expense of one's own gratification);
12. *Emotional inhibition* (excessive inhibition of spontaneous acts);
13. *Unrelenting standards/hypercriticalness* (the belief that one must strive to meet very high internalised standards);

14. *Entitlement/superiority* (the belief that one is superior to others);
15. *Insufficient self-control/self-discipline* (the belief that one cannot or need not control impulses and feelings);
16. *Admiration/recognition-seeking* (one seeking admiration or recognition from others);
17. *Pessimism/Worry* (excessive worry or negative beliefs about self, the world and others); and
18. *Self-punitiveness* (one concerned with or inflicting punishment on themselves).

The YSQ-S3 is relatively new and has not yet been widely used either clinically or for research purposes. However, it was developed from the 205-item Young Schema Questionnaire: Long Form (YSQ; Young & Brown, 1994), comprising of 16 subscales and the 75-item Young Schema Questionnaire: Short Form (YSQ-S; Young, 1998), comprising of 15 subscales. Each of the YSQ-S3 subscales consists of the five highest loading items of each YSQ scale. Participants are asked to rate how much each statement describes them, on a six-point Likert scale ('completely untrue of me' to 'describes me perfectly'). Higher scores indicate a greater chance of the specific core belief being present for an individual.

The YSQ has been validated for use in non-clinical and general clinical populations (Lee, Taylor & Dunn, 1999; Schmidt, Joiner, Young & Telch, 1995) and for patients with eating disorders (Waller, Meyer & Ohanian, 2001; Leung, Waller & Thomas, 1999). The YSQ-S has not undergone such extensive psychometric scrutiny, although recent studies support its use. Waller, Meyer and Ohanian (2001) found the YSQ-S to have good internal reliability, internal consistency and discriminant validity, but acknowledged the need for test-retest reliability analysis. In a general psychiatric outpatient sample, Stopa, Thorne, Waters and Preston (2001) compared the YSQ-L with the YSQ-S and found the latter to be a reasonable alternative to the

longer version. Welburn, Coristine, Dagg, Ponetract and Jordan (2002) found the YSQ-S to have good construct validity and good internal consistency within each of the 15 subscales.

There is little published reliability or validity data for the YSQ-S3. Preliminary analysis by Ford (2006) supports the reliability of this measure, finding that the YSQ-S3 had acceptable levels of internal consistency for all subscales with the exception of the 'unrelenting standards' and 'entitlement' scales.

3.3.4 Drop-out of treatment. For the purpose of this study, patients who ceased to attend therapy during the first ten treatment sessions offered to them were classed as 'dropping out' of treatment. All other patients were categorised as remaining in treatment. This included patients who cancelled or did not attend some appointments, but who were still attending treatment sessions after session ten.

3.4 Procedure

Approval was gained from the Local Research Ethics Committee (Appendix 3) and Research and Development department (Appendix 4). Individuals attending a specialist eating disorder service and meeting the inclusion criteria were invited to take part in the study. Participants were given information sheets (Appendix 5) and informed consent forms (Appendix 6). Those who consented were given a questionnaire pack containing the measures of narcissism, eating pathology and core beliefs before treatment had commenced. They were also weighed and their height was taken. The normal duration of treatment within this service is around 20 sessions. Information about demographics and the number of sessions attended was gathered through the analysis of clinical notes.

3.5 Statistical Analysis

Prior to analysis data were analysed for skewness and normality by use of normal plots and Kolomogrov-Smirnov tests. Hypothesis 1 was tested using a one-sampled t-test, comparing the mean scores of the current participants with data from non-clinical norms in Waller, Sines et al. (2007). Multiple regression analyses (simultaneous entry method) were used to assess the associations between the eating disordered attitudes and narcissism (hypothesis 2). A Multivariate Analysis of Variance (MANOVA) was used to examine the relationship between narcissism and eating disordered behaviours (hypothesis 3). Pearson's correlations were used to examine the associations between narcissism and core beliefs (hypothesis 4). Finally, the relationship between eating psychopathology and drop-out (hypothesis 5), and narcissism and drop-out (hypothesis 6) was investigated using Multivariate Analysis of Covariance (MANCOVA).

4 Results

4.1 Missing Data

All participants completed the EDE-Q and the OMNI, but one did not complete the YSQ-S3. In the EDE-Q, 0.5 percent (8 items) of data points were missing. In the YSQ-S3, 0.7 percent (26 items) of the data points were missing. These were taken into account when calculating subscale scores and therefore did not interfere with the number of participants' data that could be used. In the OMNI, 3.3 percent of the data points (N = 56) were missing, and these were replaced with case means. This approach was decided upon as a strategy, as it reduces the risk of Type II errors (incorrectly accepting the null hypothesis – false negative), without increasing the likelihood of a Type I error (incorrectly rejecting the null hypothesis – false positive).

4.2 Distribution of data

Kolmogorov-Smirnov tests showed all data were normally distributed (Table 1). Therefore, parametric tests were used in all further analysis. Table 1 shows Cronbach's alpha tests for the individual subscales. Excellent levels of internal consistency were found for the individual subscales of the EDE-Q and YSQ-S3, with the exception of the entitlement/superiority subscale, which was not as good. The internal consistency of the OMNI was also only weak to moderate. However, including case means (as shown in the version in the Table) improved the internal consistency of this measure (pure values - narcissistic personality, alpha = .53; poisonous pedagogy, alpha = .26; narcissistically abused personality, alpha = .43).

Table 1: Mean (standard deviation) and Kolmogorov-Smirnov test showing the distribution of all EDE-Q, OMNI and YSQ subscales. Cronbach's Alpha shows the internal consistency of the measures.

	Mean (s.d.)	k.s.	p	Cronbach's Alpha
EDE-Q				
Dietary Restraint	3.64 (1.69)	0.95	0.32	86
Eating Concern	3.10 (1.77)	0.70	0.72	.83
Shape Concern	3.42 (1.51)	0.57	0.90	89
Weight Concern	3.11 (1.58)	0.77	0.60	76
OMNI				
Narcissistic Personality	6.02 (2.54)	0.57	0.91	.54
Poisonous Pedagogy	6.24 (2.17)	1.14	0.15	.38
Narcissistically Abused Personality	4.80 (1.96)	0.81	0.54	.50
YSQ				
Emotional Deprivation	2.63 (1.51)	1.00	0.27	.88
Abandonment	2.91 (1.31)	0.90	0.39	.85
Mistrust	2.96 (1.26)	0.88	0.42	.86
Social Isolation/Alienation	3.50 (1.45)	0.84	0.49	.91
Defectiveness/Unlovability	3.04 (1.47)	0.52	0.95	.88
Failure to Achieve	2.79 (1.41)	0.79	0.55	.91
Practical Incompetence/Dependence	2.30 (1.06)	0.72	0.68	.76
Vulnerability to Harm or Illness	2.33 (1.11)	0.78	0.57	.72
Enmeshment	2.01 (1.01)	1.00	0.27	.71
Subjugation	2.68 (1.16)	0.65	0.80	.78
Self-sacrifice	3.08 (1.29)	0.64	0.81	.87
Emotional Inhibition	3.00 (1.35)	0.63	0.82	.85
Unrelenting Standards	4.10 (1.10)	0.72	0.67	.76
Entitlement/Superiority	2.72 (0.82)	0.83	0.50	.55
Insufficient Self-Control/Self-Discipline	3.07 (1.03)	0.65	0.79	.68
Admiration/Recognition-Seeking	3.59 (1.08)	0.58	0.89	.84
Pessimism/Worry	3.10 (1.44)	0.87	0.44	.88
Self-Punitiveness	3.24 (1.31)	0.88	0.43	.88

4.3 Narcissism in the eating disorders

A one-sample t-test was used to examine the differences in the levels of narcissism between the clinical and non-clinical participants (hypothesis 1). Table 2 shows that patients with eating disorders had significantly higher levels of narcissistic personality and narcissistically abused personality than non-clinical controls. However, there was no difference between the groups in levels of poisonous pedagogy.

Table 2: Mean (standard deviation) of the OMNI scores (narcissism levels) for the non-clinical group[a] and eating disordered group.

	Group			
OMNI	Non-Clinical[a]	Clinical	t (d.f.)	p
Narcissistic Personality	4.49 (2.31)	6.02 (2.54)	3.85 (40)	0.001
Poisonous Pedagogy	5.67 (2.30)	6.24 (2.17)	1.67 (40)	0.10
Narcissistically Abused Personality	3.64 (1.62)	4.80 (1.96)	3.81 (40)	0.001

Note: [a] From Waller, Sines et al. (2007).

A multiple regression (simultaneous entry method) was used to examine the associations between narcissism and eating pathology (hypothesis 2). Table 3 shows no associations between core narcissism and eating pathology, or between the poisonous pedagogy defence style and eating pathology were found. However, the narcissistically abused personality defence style was found to be significantly associated with all aspects of eating disordered psychopathology (as measured by the EDE-Q).

Table 3: Multiple regression analyses (simultaneous entry method) showing associations of narcissism (OMNI scales) with eating attitudes (EDE-Q scales)

Dependent variables	Overall Effect			Independent Variables			
EDE-Q scales	F (df)	p	Explained variance (%)	OMNI Scales	t (df)	p (one-tailed)	ß
Restraint	5.195 (3.40)	.004	23.9	Narcissistic Personality	.195 (39)	.847	.034
				Poisonous Pedagogy	-.417 (39)	.679	-.065
				Narcissistically Abused Personality	3.198 (39)	.003	.520
Eating Concern	3.029 (3.40)	.041	13.2	Narcissistic Personality	-.353 (39)	.726	-.065
				Poisonous Pedagogy	-1.071 (39)	.291	-.177
				Narcissistically Abused Personality	2.334 (39)	.025	.405
Shape Concern	2.607 (3.40)	.066	10.8	Narcissistic Personality	.267 (39)	.791	.050
				Poisonous Pedagogy	-.594 (39)	.556	-.100
				Narcissistically Abused Personality	2.136 (39)	.039	.376
Weight Concern	4.859 (3.40)	.006	22.4	Narcissistic Personality	-.412 (39)	.682	-.072
				Poisonous Pedagogy	-.294 (39)	.770	-.046
				Narcissistically Abused Personality	3.361 (39)	.002	.552

The associations between narcissism and eating disordered behaviours (hypothesis 3) were examined using a MANOVA. The use of laxatives or excessive exercise as a means of controlling shape or weight was found to be associated with higher levels of the narcissistically abused personality defence style (Table 4). No other eating disordered behaviours were found to be associated with core narcissism or the narcissistic defence styles.

Table 4: Mean (standard deviation) OMNI scores for patients who do or do not engage in compensatory eating disorder behaviours (EDE-Q).

	Group		t (df)	p
	Present	Not Present		
Objective Bulimic Episodes				
Narcissistic Personality	6.05 (2.38)	5.85 (3.60)	.031 (39)	.862
Poisonous Pedagogy	6.26 (2.10)	6.12 (2.80)	.021 (39)	.887
Narcissistically Abused Personality	5.00 (1.91)	3.67 (1.97)	.125 (39)	.125
Vomiting				
Narcissistic Personality	6.55 (2.15)	5.51 (2.82)	1.771 (39)	.191
Poisonous Pedagogy	6.05 (1.63)	6.41 (2.62)	.273 (39)	.605
Narcissistically Abused Personality	5.33 (1.93)	4.30 (1.88)	3.001 (39)	.091
Laxative Misuse				
Narcissistic Personality	6.90 (2.64)	5.77 (2.50)	1.413 (39)	.242
Poisonous Pedagogy	5.87 (1.64)	6.34 (2.31)	.327 (39)	.571
Narcissistically Abused Personality	6.24 (1.59)	4.40 (1.87)	7.231 (39)	.010
Diuretic Misuse				
Narcissistic Personality	3.78 (2.03)	6.26 (2.49)	3.660 (39)	.063
Poisonous Pedagogy	6.68 (2.44)	6.19 (2.17)	.180 (39)	.674
Narcissistically Abused Personality	4.17 (1.92)	4.87 (1.97)	.457 (39)	.503
Excessive Exercise				
Narcissistic Personality	6.51 (2.50)	5.64 (2.56)	1.187 (39)	.283
Poisonous Pedagogy	6.28 (2.44)	6.20 (2.00)	.011 (39)	.916
Narcissistically Abused Personality	5.58 (1.78)	4.19 (1.91)	5.674 (39)	.022

4.4 Narcissism and core beliefs in the eating disorders

Table 5 outlines the relationship between narcissism and the narcissistic defences, and core beliefs (hypothesis 4). Due to the high number of correlations being conducted on the data, a significance level of 0.01 was employed in order to reduce the risk of Type I error. Only one core belief (admiration/recognition seeking) was found to be associated with core narcissism. No associations were found between poisonous pedagogy and the core beliefs measured. In contrast, several core beliefs (abandonment, mistrust, social isolation/alienation, defectiveness/unlovability, failure to achieve, subjugation, emotional inhibition) were found to be associated with the narcissistically abused personality defence.

Table 5: Pearson's correlations showing associations of core beliefs (YSQ-S3 scales) with narcissism (OMNI scales).

	Narcissistic Personality	Poisonous Pedagogy	Narcissistically Abused Personality
Emotional Deprivation	.194 NS	.052 NS	.362 NS
Abandonment	.329 NS	.024 NS	.653*
Mistrust	.182 NS	.019 NS	.549*
Social Isolation/Alienation	.253 NS	-.002 NS	.510*
Defectiveness/Unlovability	.251 NS	-.084 NS	.707*
Failure to achieve	.234 NS	.082 NS	.499*
Practical Incompetence/Dependence	.396 NS	-.070 NS	.326 NS
Vulnerability to Harm	.304 NS	.126 NS	.160 NS
Enmeshment	.361 NS	-.139 NS	.332 NS
Subjugation	.330 NS	-.077 NS	.538*
Self-sacrifice	-.023 NS	-.063 NS	.439 NS
Emotional Inhibition	.215 NS	-.039 NS	.543*
Unrelenting Standards	.157 NS	.211 NS	.292 NS
Entitlement/Superiority	.113 NS	.151 NS	-.208 NS
Insufficient self control/Self-discipline	.442 NS	.098 NS	.282 NS
Admiration/Recognition-seeking	.537*	.291 NS	.376 NS
Pessimism/Worry	.242 NS	.080 NS	.302 NS
Self-punitiveness	.214 NS	-.031 NS	.462 NS

Note: * $p < .01$, NS = non-significant

4.5 Drop-out in the eating disorders

Using the definition outlined above ten patients were classified as 'drop-outs' and the remaining 31 patients 'completers'. This means that, of the patients recruited, 75.61 percent remained in treatment after the tenth session.

4.5.1 The role of eating pathology. When controlling for age and BMI, Table 6 shows there was no significant difference in the likelihood of dropping out of treatment as a result of a patient's level of eating disorder psychopathology (hypothesis 5).

Table 6: Mean EDE-Q scores (eating disorder psychopathology) for completers and drop-outs. Scores were compared using multivariate analysis of covariance (MANCOVA), controlling for age and body mass index (BMI).

	Group		MANCOVA		
EDE-Q scale	Completers	Drop-outs	Group F	Age F	BMI F
Restraint	3.42 (1.74)	4.34 (1.40)	2.669 ^{NS}	1.691 ^{NS}	5.479*
Eating Concern	2.96 (1.88)	3.52 (1.39)	2.087 ^{NS}	3.779 ^{NS}	4.711 ^{NS}
Shape Concern	3.26 (1.49)	3.91 (1.53)	2.438 ^{NS}	.225 ^{NS}	4.863 ^{NS}
Weight Concern	3.08 (1.60)	3.21 (1.57)	2.445 ^{NS}	1.366 ^{NS}	7.110*

Note: *p < .05, ** p < .001, NS = non-significant

4.5.2 The role of narcissism. Table 7 shows that when controlling for age, BMI and eating disorder psychopathology, patients who dropped out had higher levels of the narcissistically abused personality defence style (hypothesis 6). Core narcissism and the poisonous pedagogy defence style were not related to the likelihood of dropping out or completing treatment.

Table 7: Mean (standard deviation) OMNI scores (narcissism) for completers and drop-outs. Scores were compared using multivariate analysis of covariance (MANCOVA), controlling for eating disorder psychopathology (EDE-Q scales), age and body mass index (BMI).

OMNI scale	Group		MANCOVA						
	Completers	Drop-outs	Group F	Restraint F	Eating Concern F	Shape Concern F	Weight Concern F	Age F	BMI F
Narcissistic Personality	5.83 (2.25)	6.57 (3.38)	.487^{NS}	1.267^{NS}	.861^{NS}	.131^{NS}	.005^{NS}	.150^{NS}	.068^{NS}
Poisonous Pedagogy	6.41 (2.18)	5.70 (2.16)	.790^{NS}	1.014^{NS}	1.837^{NS}	.652^{NS}	.169^{NS}	.020^{NS}	1.197^{NS}
Narcissistically Abused Personality	4.57 (1.96)	5.53 (1.86)	3.862*	1.488^{NS}	.361^{NS}	.449^{NS}	2.702^{NS}	5.414*	.879^{NS}

Note: *p < .05, **p < .001, NS = non-significant

5 Discussion

The aim of this study was to consider the relationship between narcissism and the eating disorders, and to determine which, if any, aspects of narcissism are associated with adherence to the psychological treatment of the eating disorders. Patients with eating disorders were found to have higher levels of core narcissism and the narcissistically abused personality defence style (the martyred form, which involves putting others' needs before one's own – 'poor me') than non-clinical controls. Further to this, greater levels of eating disorder attitudes were found to be associated with greater levels of the 'martyred' form of narcissism. The behaviours associated with eating disorders were less predictive of the presence of narcissism in these patients. The poisonous pedagogy defence style (which involves seeing others as wrong and in need of direction - 'bad you') does not appear to fit in with the eating disordered population. These results are in line with previous research conducted by Waller, Sines et al. (2007).

When considering the relationship between narcissism and core beliefs, in contrast to what was expected, core narcissism was not found to be associated with entitlement beliefs. This is surprising given that the definition of core narcissism includes 'feelings of entitlement'. Core narcissism was, however, found to be associated with beliefs about admiration or recognition seeking. The martyred form of narcissism was found to be associated with a number of core beliefs, and as expected this was mainly around feelings of being a worthless individual. With the exception of the lack of a relationship between core narcissism and entitlement beliefs, these results are similar to those found by Sines et al. (under consideration).

Twenty-four percent of patients did not complete the treatment that was offered to them. This figure is slightly lower than suggested in previous research that

examined adherence to the psychological treatment of the eating disorders (e.g., Halmi et al., 2005; Mitchell, 1991; Waller, 1997). Whilst eating disorder psychopathology was not found to significantly predict the likelihood of dropping out of treatment, the presence of the martyred form of narcissism was found to significantly increase the likelihood that that individual would drop-out of treatment, when age, BMI and severity of illness are controlled for.

The results above and the existing literature (Coker, Vize, Wade & Cooper, 1993; Waller, 1997) appear to suggest that patients with Cluster B disorders are at increased risk of dropping out of psychological treatment of the eating disorders. Individuals falling within this group tend to have underlying beliefs about abandonment and emotional deprivation. It may be that those patients with this underlying personality pathology who present for treatment, do not feel worthy of the support they receive. In patients with Borderline Personality Disorder this may present as their being less controlled, whereas in patients who have narcissistic tendencies it presents in a more martyred form. Often this can result in a self-fulfilling prophecy, as patients may push away from (drop out of) treatment. It may therefore be important to talk this through with patients at the beginning of treatment.

5.1 Strengths and Limitations

There are a number of strengths and limitations of the research conducted. One strength is that the questionnaire pack was completed as part of the standard assessment and treatment procedure, and the majority of patients agreed to participate. It therefore seems unlikely that only the most motivated patients, who may be more likely to engage in treatment, participated. This makes the results more generalisable to the standard sample of patients referred to specialist services for eating disorders.

One of the major limitations of this study was the relatively small sample size. Whilst differences were found there may have some that were missed due to the lack of power. Also, ideally, and in line with suggestions made by Kazdin and Mazurik (1994), recruitment in the present study would have continued until there were enough participants available to examine the difference between those who dropped out early in treatment (failures to engage), those who dropped out later in treatment (drop-outs) and those who completed. Due to time constraints, it was not possible in this study. However, future researchers may wish to take this approach.

Another limitation concerns the measures used in this study. Previous studies looking at the validity and reliability of the OMNI have shown the measure to have good levels of internal consistency (O'Brien, 1987; 1988). However, the internal consistency of the OMNI in this study was relatively poor (Cronbach's alphas = .38 - .54). This may have affected the results found, particularly increasing the possibility of type II errors (failing to find associations or differences that are in fact there). Possible explanations for the lower reliability figures may be the small sample size or the number of missing data items in this measure. The reliability of the poisonous poisonous pedagogy scale was particularly low, which may account for the lack of associations detected. A decision not to exclude this measure from the analyses was made, given the acceptable reliability found in previous studies and the potential for even scales with moderate reliability to generate hypotheses and useful findings.

It is also important to consider the measure of narcissism used. The results found could be artefacts of the questions comprising the subscales of the OMNI. A central issue is whether, in Miller's three factor model of narcissism, the narcissistic defences are conceptually distinct from other personality traits or attributes (for

example, dependence, social anxiety, low self-esteem, etc.). Furthermore, the operationalisation of the model by O'Brien, the language and questions used, may access other personality traits or attributes. Future research is needed to further establish the discriminant validity of the subscales of the OMNI.

An additional issue is whether an individual's unconscious defence processes are able to be elicited accurately through a questionnaire-based self-report measure. An implicit measure of these personality traits may be more informative, and could be used in future research. On the other hand, it has been suggested that whilst measuring unconscious mechanisms is difficult, individuals occasionally become aware of these processes and are therefore able to rate themselves accordingly (Bond, Gardner, Christian & Srege, 1986).

Garner (2002) has also noted that when assessing the specific psychopathology of eating disordered behaviour the most accurate results are achieved through the administration of a structured or semi-structured interview (conducted by trained individuals). The lack of association between core narcissism and the narcissistic defence styles, and eating disordered behaviour may be due to poor validity of the EDE-Q at monitoring the behaviours employed. Future research may wish to examine this relationship using an interview-based approach.

It is also important to consider the definition of 'drop-out' used. This study used a definition based on number of sessions attended, a criterion that has been used often in other studies looking at drop-out (e.g., Treasure et al., 1999; van Strien, van der Ham & van Engeland, 1992). However, this does not take into account patients who may have got better during this time. Wierzbicki and Pekarik (1993) suggest that, as well as the number of sessions attended, studies should also consider the therapist's judgement as to what constitutes a drop-out. Future research could

differentiate between those patients who drop out of treatment with the agreement of the clinical team and those who drop out against medical advice.

A further limitation of this study is that all participants were recruited from one specialist service. Whilst this minimises the variance from external sources, it means that the results are based on a highly selected population, which may reduce their generalisability. Therefore, it would be beneficial to repeat this study with a community sample. Further to this, whilst all patients were treated with CBT, the approach was not manualised - something that could be addressed in future research. Future researchers may also wish to replicate this study with patients being treated with other different treatment modalities.

Previous research (Sines et al., under consideration; Waller, Sines et al., 2007) has found no differences in narcissism and narcissistic defences across eating disorder diagnoses, supporting a transdiagnostic approach to understanding the phenomenon (Fairburn, Cooper & Shafran, 2003). However, due to the relatively small sample size in this study, such analysis was not possible. As personality differences have been noted between the diagnoses (Vervaet, van Heeringen & Audenaert, 2004) it may be important to consider the impact of diagnosis on the relationship between narcissism and dropping out of the psychological treatment of eating disorders.

5.2 Future Directions

Further to attempting to resolve the limitations outlined above, there are a number of areas on which future research may wish to focus.

Whilst it is important to consider factors that influence the drop-out from psychological treatment of the eating disorders, future research could extend this to

consider the difference between those patients who do not access treatment at all and those who approach services, especially as the detection rate is less than 50 percent for both anorexia nervosa and bulimia nervosa (Hoek & van Hoeken, 2003; Johnson, Spitzer & Williams, 2001)

In the future, it may also be important to consider the process of therapy when considering adherence to psychological therapy for the eating disorders, as remaining in treatment does not necessarily mean that patients are adhering to treatment. Considering punctuality, number of cancelled or not attended sessions, completion of homework, etc. may be important in understanding adherence.

5.3 Clinical Implications

A 'law of diminishing returns' has been noted in the psychotherapy literature, suggesting that additional treatment leads to less and less additional gain, depending on the amount of therapy already applied (Howard et al., 1986). It therefore appears important to maximise efficacy of treatment the first time around. It has been stressed that individual factors should be considered at assessment, and that treatment should be individually tailored for eating disorder patients, targeting those at highest risk (Kordy, Haug & Percevic, 2006; McLaren et al., 2001). Factors (such as narcissism) established and understood during the pre-treatment assessment phase should be used to help plan treatment more effectively (Blouin et al., 1995). If identified in these early stages, these factors can allow clinicians to amend and individually tailor the treatment plan.

Clinically, for patients who are narcissistic, or who are inclined to employ narcissistic defence strategies, difficulties in therapy may emerge when trying to develop an effective working alliance. Patients may experience treatment as a challenge to their already fragile self-esteem and may adopt a martyred position in order to reduce the

difficult feelings they are experiencing (Sines et al., under consideration). Initially enhancing a patient's tolerance to the challenging of beliefs, which is an inherent part of therapy, may therefore be beneficial. It is likely that core narcissism and the narcissistic defences would need to be treated differently. Specifically, in the eating disorders, it seems that patients who display high levels of the martyred form of narcissism have an increased likelihood of dropping out of treatment, and it may be this that needs to be addressed first.

Warren, Zaman, Dolan, Norton and Evans (2006) note that reducing core personality symptoms through specialist treatment increases the compliance with and effectiveness of treatment for Axis I disorders, such as the eating disorders. They found that patients who received specialist treatment for personality disorders had more improved dieting attitudes than those patients who received 'treatment as usual'. Steinberg and Shaw (1997) also suggest some interventions for working with individuals with eating disorders who also display narcissistic personality traits, including building on an individual's fragile sense of self. It may be helpful to work with patients to develop skills that enhance their belief that they are worthy of treatment. Initially addressing the core beliefs associated with the martyred form of narcissism may reduce the narcissistic features an individual presents with. This would allow treatment to continue along a more conventional path, with therapist and patient working together collaboratively.

6 References

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th Ed.). Washington, DC: Author.

Beck, A. T., Freeman, A., Davis, D. D., & Associates (2004). *Cognitive Therapy of Personality Disorders* (2nd Ed.). New York: Guildford.

Black, C. M. D., & Wilson, G. T. (1996). Assessment of eating disorders: interview versus questionnaire. *International Journal of Eating Disorders, 20*, 43-50.

Blouin, J., Schnarre, K., Carter, J., Blouin, A., Tener, L., Zuro, C., & Barlow, J. (1995). Factors affecting dropout rate from cognitive-behavioural group treatment for bulimia nervosa. *International Journal of Eating Disorders, 17*, 323-329.

Bond, M., Gardner, S. T., Christian, J., & Srege, J. (1986). Empirical study of self-rated defense styles. *Archives of General Psychiatry, 40*, 333-338.

Brunton, J. N., Lacey, J. H., & Waller, G. (2005). Narcissism and eating characteristics in young nonclinical women. *Journal of Nervous and Mental Disease, 193*, 140-143.

Button, E.J., Marshall, P., Shinkwin, R., Black, S.H., & Palmer, R.L. (1997). One hundred referrals to an eating disorders service: Progress and service consumption over a 2-4 yr period. *European Eating Disorders Review, 5*, 47-63.

Carter, J. C., Aime, A. A., & Mills, J. S. (2001). Assessment of bulimia nervosa: a comparison of interview and self-report questionnaire methods. *International Journal of Eating Disorders, 30*, 187-192.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.

Coker, S., Vize, C., Wade, T., & Cooper, P. J. (1993). Patients with bulimia nervosa who fail to engage in cognitive behaviour therapy. *International Journal of Eating Disorders, 13*, 35-40

Crisp, A. H., Hsu, L. K., Harding, B., & Hartshorn, J. (1980). Clinical features of anorexia nervosa, a study of a consecutive series of 102 female patients. *Journal of Psychosomatic Research, 24*, 179-191.

Davis, C., Claridge, G., & Cerullo, D. (1997a). Reflections on narcissism: Conflicts about body image perceptions in women. *Personality and Individual Differences, 22*, 309-316.

Davis, C., Claridge, G., & Cerullo, D. (1997b). Personality factors and weight preoccupation: A continuum approach to the association between eating disorders and personality disorders. *Journal of Psychiatric Research, 31*, 467-480.

Davis, M. S., & Marsh, L. (1986). Self-love, self-control, and alexithymia: Narcissistic features of two bulimic adolescents. *American Journal of Psychotherapy, 40*, 224-232.

Dionne, M. M., Davis, C., Fox, J., & Gurevich, M. (1995). Feminist ideology as a predictor of body dissatisfaction in women. *Sex Roles, 33*, 277-287.

Fahy, T., & Eisler, I. (1993). Impulsivity and eating disorders. *British Journal of Psychiatry, 162*, 193-197.

Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders, 16*, 363-370.

Fairburn, C. G., & Cooper, Z. (1993). The Eating Disorder Examination (12th ed.). In C. G. Fairburn & G. T. Wilson (Eds.), *Binge eating: Nature, assessment and treatment* (pp. 317-332). New York: Guilford Press.

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. *Behaviour Research and Therapy, 41*, 509-528.

Fairburn, C. G., & Harrison, P. J., (2003). Eating disorders. *The Lancet, 361*, 407-416.

Ford, G. (2006). *Invalidating Environments and Core Beliefs in Eating Pathology*. Dissertation submitted for the degree of Doctorate in Clinical Psychology. University of Canterbury Christ Church, Salomans.

Garner, D.M. (2002). Measurement of eating disorder psychopathology. In K.D. Brownell & C.G. Fairburn (Eds.), *Comprehensive Textbook of Eating Disorders and Obesity* (2nd Edition, pp. 141-146). New York; Guilford Press.

Halmi, K. A., Agras, S., Crow, S., Mitchell, J., Wilson, G. T., Bryson, S. W., & Kraemer, H. C. (2005). Predictors of treatment acceptance and completion in

anorexia nervosa: implications for future study designs. *Archives of General Psychiatry, 62*. 776-781.

Hoek, H. W. (2002). Distribution of eating disorders. In C. G. Fairburn & K. D. Brownell (Eds.) *Eating Disorders and Obesity: A Comprehensive Handbook* (2nd edition) (pp. 233-237). New York: Guilford Press.

Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34*, 383-396.

Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The does-effect relationship in psychotherapy. *American Psychologist, 51*, 1059-1064.

Johnson, J. G., Cohen, P., Kasen, S., & Brook, J. S. (2006). Personality disorder traits evident by early adulthood and risk for eating and weight problems during middle adulthood. *International Journal of Eating Disorders, 39*, 184-192.

Johnson, C., & Connors, M. (1987). *The etiology and treatment of bulimia nervosa: A biopsychosocial perspective*. New York: Basic Books.

Johnson, J. G., Spitzer, R. L., & Williams, J. B. W. (2001). Health problems, impairment and illness associated with bulimia nervosa and binge eating disorder among primary care and obstetric gynaecology patients. *Psychological Medicine, 31*, 1455-1466.

Johnson, C., Tobin, D. L., & Dennis, A. (1990) Differences in treatment outcome between borderline and nonborderline bulimics at one-year follow-up. *International Journal of Eating Disorders, 9*, 617-627.

Karwautz, A., Volkl-Kernstock, S., Nobis, G., Kalchmayr, G., Hafferl-Gattermayer, A., Wober-Bingol, C., & Freidrich, M. H. (2001). Characteristics of self-regulation in adolescent patients with anorexia nervosa. *British Journal of Medical Psychology, 74*, 101-114.

Kazdin, A. E., & Mazurick, J. L. (1994). Dropping out of child psychotherapy: Distinguishing between early and late dropouts over the course of treatment. *Journal of Consulting and Clinical Psychology, 62*, 1069-1074.

Kennedy, S. H , McVey, G., & Katz, R. (1990). Personality disorders in anorexia nervosa and bulimia nervosa. *Journal of Psychiatric Research, 24*, 259-269.

Kopelman, R., & Mullins, L. (1992). Is narcissism inversely related to satisfaction? An examination of the data from two US samples. *The Journal of Psychology, 126*, 121-130.

Kordy, H., Haug, S., & Percevic, R. (2006). Patients differ – A plea for individually tailored service allocation. *European Eating Disorder Review, 14*, 1-7.

Lee, C. W., Taylor, G., & Dunn, J. (1999). Factor Structure of the Schema Questionnaire in a Large Clinical Sample. *Cognitive Therapy and Research, 23*, 441-451.

Lehoux, P. M., Steiger, H., & Jabalpurlawa, S. (2000). State/trait distinctions in bulimic syndromes *International Journal of Eating Disorders, 27*, 36-42.

Leung, N., Waller, G., & Thomas, G. V. (1999). Core beliefs in anorexic and bulimic

women. *Journal of Nervous and Mental Disease, 187*, 736-741.

Lilenfeld, L. R., Kaye, W. H., Greeno, C. G., Merikangas, K. R., Plotnicov, K., Pollice, C., Rao, R., Strober, M., Bulik, C. M., & Nagy, L. (1998). A controlled family study of anorexia nervosa and bulimia nervosa: psychiatric disorders in first-degree relatives and effects of proband comorbidity. *Archives of General Psychiatry, 55*, 603-610.

Luce, K. H., & Crowther, J. H. (1999). The reliability of the eating disorder examination-self-report questionnaire version (EDE-Q). *International Journal of Eating Disorders, 25*, 349-351.

Mahon, J. (2000). Dropping out from treatment for eating disorders: What are the issues? *European Eating Disorders Review, 8*, 198-216.

Masterson, J. F. (1995). Paradise lost – Bulimia, a closet narcissistic personality disorder: A developmental, self, and object relations approach. *Adolescent Psychiatry, 20*, 253-266.

McLaren, L., Gauvin, L., & Steiger, H. (2001). A two-factor model of disordered eating. *Eating Behaviours, 2*, 51-65.

Miller, A. (1981). *The drama of the gifted child.* New York: Basic books.

Miller, A. (1984). *Thou shalt not be aware.* New York: Farrar, Straus & Giroux.

Miller, A. (1985) *For your own good.* New York: Farrar, Straus & Giroux.

Miller, I. (1992). Interpersonal vulnerability and narcissism: A conceptual continuum for understanding and treating narcissistic psychopathology. *Psychotherapy, 29*, 216-224.

Mitchell, J. E. (1991). A review of the controlled trials of psychotherapy for bulimia nervosa. *Journal of Psychosomatic Research, 35*, 22-31.

Mogul, L. S. (1980). Asceticism in adolescence and anorexia nervosa. *Psychoanalytical Studies of the Child, 35*, 155-175.

Mond, J. M., Hay, P. J., Rodgers, B., Owen, C., & Beumont, P. J. V. (2004). Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in screening for eating disorders in community samples. *Behaviour Research and Therapy, 42*, 551-567.

National Institute of Clinical Excellence. (2004). *Eating Disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders*. London, UK: British Psychological Society.

O'Brien, M. (1987). Examining the dimensionality of pathological narcissism: factor analysis and construct validity of the O'Brien Multiphasic Narcissism Inventory. *Psychological Reports, 61*, 499-510.

O'Brien, M. (1988). Further evidence for the validity of the O'Brien Multiphasic Narcissism Inventory. *Psychological Reports, 62*, 879-882.

Peterson, C. B., Crosby, R. D. Wonderlich, S. A., Joiner, T., Crow, S. J., Mitchell, J. E., Bardone-Cone, A. M., Klein, M., & le Grange, D. (2007). Psychometric properties

of the Eating Disorder Examination – Questionnaire: Factor structure and internal consistency. *International Journal of Eating Disorders, 40,* 386-389.

Rossiter, E. M., Agras, W. S., Telch, C. F., & Schneider, J. A. (1993). Cluster B personality disorder characteristics predict outcome in the treatment of bulimia nervosa. *International Journal of Eating Disorders, 13,* 349-357.

Ruderman, A. J., & Grace, P. S. (1987). Restraint, bulimia and psychopathology. *Addictive Behaviors, 12,* 249-255.

Ruderman, A. J., & Grace, P. S. (1988). Bulimics and restrained eaters: A personality comparison. *Addictive Behaviors, 13,* 359-368.

Sacoomani, L., Savoini, M., Cirrincione, M., Vercellino, F., & Ravera, G. (1998). Long-term outcome of children and adolescents with anorexia nervosa: a study of comorbidty. *Journal of Psychosomatic Research, 44,* 565-571.

Sands, S. H. (2000). Self psychology therapy. In Miller, K., & Mizes, J. S. (Eds) *Comparative treatments of eating disorders.* London: Free Association Books, pg 182-206.

Schmidt, N. B., Joiner, T. E., Young, J. E., & Telch, M. J. (1995). The schema questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research, 19,* 295-321.

Sines, J., Waller, G., Meyer, C. & Wigley, L. (under consideration). Core beliefs and narcissistic characteristics among eating-disordered and non-clinical women. *Psychology & Psychotherapy*.

Steiger, H., Jabalpurlawa, S., Champagne J., & Stotland, S. (1997). A controlled study of trait narcissism in anorexia and bulimia nervosa. *International Journal of Eating Disorders, 22*, 173-178.

Steiger, H., Stotland, S., Ghadirian, A. M., & Whitehead, V. (1995). Controlled study of eating concerns and psychopathological traits in relatives of eating-disordered probands: Do familial traits exist? *International Journal of Eating Disorders, 9*, 51-55.

Steinberg, B. E., & Shaw, R. J. (1997). Bulimia as a disturbance of narcissism: self-esteem and the capacity to self-soothe. *Addictive Behaviors, 22*, 699-710.

Stopa, L., Thorne, P., Waters, A., & Preston, J. (2001). Are the short and long forms of Young Schema Questionnaire comparable and how well does each version predict psychopathology scores? *Journal of Cognitive Psychotherapy, 15*, 253-272.

Treasure, J. L., Katzman, M., Schmidt, U., Troop, N., Todd, G., & de Silva, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing motivation enhancement therapy and cognitive behavioural therapy. *Behaviour Research and Therapy, 37*, 405-418.

van Strien, D. C., van der Ham, T., & van Engeland, H. (1992). Drop out characteristics in a follow-up study of 90 eating-disordered patients. *International Journal of Eating Disorders, 12*, 341-343.

Vandereycken, W., & Pierloot, R. (1983). Drop out during in-patient treatment of anorexia nervosa: A clinical study of 133 patients. *British Journal of Medical Psychology, 56*, 145- 156.

Vervaet, M., van Heeringen, C., & Audenaert, K. (2004). Personality-related characteristics in restricting versus binging and purging eating disordered patients. *Comprehensive Psychiatry, 45*, 37-43.

Wagner, A., Barbarich-Marsteller, N. C., Frank, G. K., Bailer, U. F., Wonderlich, S. A., Crosby, R. D., Henry, S. E., Vogel, V., Plotnicov, K., McConaha, C., & Kaye, W. H. (2006). Personality traits after recovery from eating disorders: Do subtypes differ? *International Journal of Eating Disorders, 39*, 276-284.

Waller, G. (1997). Drop-out and failure to engage in individual outpatient cognitive behavior therapy for bulimic disorders. *International Journal of Eating Disorders, 22*, 35-41.

Waller, G., Emmanuelli, F., Crockett, J., Key, A., Murphy, B., Lock, L., Treasure, J., Schmidt, U., Murray, K., Aleyna, J., Todd, G., and Yeomans, M. (2005). *Pathways to care and matching clients to treatments: An audit of tertiary level eating disorders services.* Specialist Clinical Audit Programme for London, Kent, Surrey & Sussex.

Waller, G., Kennerley, H., & Ohanian, V. (2007). Schema-focused cognitive behaviour therapy with eating disorders. In L. P. Riso, P. T. du Toit, & J. E. Young (Eds). *Cognitive schemas and core beliefs in psychiatric disorders: A scientist-practitioner guide*. New York: American Psychological Association.

Waller, G., Meyer, C., & Ohanian, V. (2001). Psychometric properties of the long

and short versions of the Young Schema Questionnaire: Core beliefs among bulimic and comparison women. *Cognitive Therapy and Research, 25*, 137-147.

Waller, G., Sines, J., Meyer, C., Foster, E., & Skelton, A. (2007). Narcissism and narcissistic defences in the eating disorders. *International Journal of Eating Disorders, 40*, 143-148.

Warren, F., Zaman, S., Dolan B., Norton, K., & Evans, C. (2006). Eating disturbance and severe personality disorder: Outcome of specialist treatment for severe personality disorder. *European Eating Disorder Review, 14*, 69-78.

Welburn, K., Coristine, M., Dagg, P., Pontefract, A., & Jordan, S. (2002). The schema questionnaire - short form: Factor analysis and relationship between schemas and symptoms. *Cognitive Therapy and Research, 26*, 519-530.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice, 24*, 190-195.

Wilfley, D. E., Schwartz, M. B., Spurrell, E. B., & Fairburn, C. G. (1997). Assessing the specific psychopathology of binge-eating disorder patients: interview or self-report? *Behaviour Research and Therapy, 35*, 1151-1159.

Wonderlich, S. A., & Mitchell, J. (2001). The role of personality in the onset of eating disorders and treatment implications. *Psychiatric Clinics of North America, 24*, 249-258.

Yarrock, S. R. (1993). Understanding chronic bulimia: A four-psychologies approach. *American Journal of Psychoanalysis, 53*, 3-17.

Young, J. E. (1998). *The Young Schema Questionnaire: Short form.* Available in electronic form via: http://www.schematherapy.com.

Young, J. E. (2005). *The Young Schema Questionnaire: Short form Version 3.* Available in electronic form via: http://www.schematherapy.com.

Young, J. E., & Brown, G. (1994). Young Schema Questionnaire. In J. E. Young (Ed.), *Cognitive therapy for personality disorders: A schema-focused approach* (Rev. Ed., pp 62-76). Sarasota, FL: Professional Resource Exchange.

Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York: Guildford.

PART 3: CRITICAL APPRAISAL

1 Introduction

This dissertation has attempted to understand the process of dropping out of psychological treatment, particularly cognitive-behavioural therapy, for the eating disorders. The first part examined the empirical research to date, considering a variety of factors that have been associated with drop-out. The second part, the empirical study, investigated the role of narcissism in the eating disorders and specifically the effect it has on engagement in therapy. This third and final part of the dissertation is a critical reflection on the research process as a whole, and is set out in four sections. The first section is a personal reflection on the research project. The second section addresses some of the methodological and conceptual issues encountered whilst completing the literature review and project. It expands on some of the points outlined in the discussion sections of part one and two, as well as identifying some new issues. The third section discusses some future directions for research. The final section considers further the clinical implications associated with narcissism, the eating disorders and drop-out.

2 Personal Reflection

Prior to commencing my doctorate in clinical psychology I worked for a couple of years in clinical research. During this period, I noticed that much of time was spent in trying to retain people in treatment and to think of ways in which adherence could be maximised. This project, on the other hand, considers the problem from the opposite angle, and focuses on what prevents patients from adhering to treatment.

Whilst conducting the literature review, I became very aware of the importance of understanding lack of adherence to treatment, given the many negative consequences of dropping out of treatment, including poorer long-term outcome and

higher rates of relapse. During the latter part of this project, I was on placement within the service I was recruiting from. Studying the relevant literature and working clinically within the service gave me a greater understanding of the implications of drop-out for patients with eating disorders and the importance of researching drop-out within this population. Patients generally attended for treatment having suffered from the eating disorder for many years, feeling quite desperate, ambivalent and that there was little that could be done to help them. Given this situation, a failed attempt at treatment may deter patients from returning to treatment in the future, resulting in the eating disorder becoming more entrenched.

Considering the factors that other researchers had found to influence adherence to treatment also helped me to think about how I work clinically with patients with eating disorders. Conducting the empirical project has also influenced my clinical work and thinking. It has firmed my belief in the importance of conducting a thorough clinical assessment in order to guide treatment and has led me to consider how assessment tools can be used to strengthen this process. It has also made me more aware of the some of the unconscious messages and difficulties that patients may be trying to communicate in sessions.

Considering factors that influence the lack of adherence to treatment and drop-out rates in general has also allowed me to reflect on my experiences and anxieties about being a therapist. Whilst drop-out is a common problem in the field of mental health, as well as in the eating disorders, I have a tendency to see those of my patients who do not engage in therapy as a reflection on my clinical skills. Knowledge of the percentage of patients who are likely to drop-out, as well as of the vast number of factors, or combination of factors, that can influence drop-out has allowed me to appraise my own caseload more realistically. It has also helped me to

consider how I can further develop my skills to work with patients to enable them to remain in treatment.

3 Methodological and Conceptual Issues

A number of methodological and conceptual issues arose whilst conducting the literature review and empirical paper. The following section outlines some of the issues that I grappled with during the course of the project and which appear to be important when considering the body of literature so far and future research in the field.

3.1 Defining drop-out

Trying to develop an understanding of the concept of dropping out of treatment was the most complex (and time consuming) process of the project. It felt particularly important when conducting the literature review to find and employ a consistent definition of what constituted a 'drop-out'. Mahon (2000) made a plea for a consistent definition to be employed. However, little progress appeared to have been made towards this goal since that time. Few (if any) conclusions could be drawn in the literature review, and this may be a result of so few studies having consistent definitions of drop-out. The importance of reporting drop-out information and of using a consistent definition when conducting research into drop-out should not be underestimated.

Defining drop-out was also important when deciding on the criteria used in my empirical study. Patient's emotions and cognitions behind their decision to drop out of treatment are often overlooked in empirical studies, possibly because of the difficulties in independently measuring these elements in quantitative research. It seemed important to consider the intent behind the decision to drop-out (e.g.,

whether the patient thought they had recovered or achieved everything they wished from therapy, or whether they were finding the process too painful), but this information is rarely entered in the clinical notes and would have been very difficult to obtain. It would also have been interesting to explore the therapists' viewpoints on why the patient ceased treatment, and on whether they had dropped out against medical advice or with the support of the clinical team. However, again, this information is not consistently recorded in patients' notes.

Previous research had tended to use more objective measures. The majority of the studies in the literature review used definitions for drop-out based on the number of sessions attended or completion of the full treatment package. However, this seemed over-inclusive. My clinical work has made me aware that patients vary greatly in the amount of therapy they require to recover from their eating disorder, and it does not seem likely that a 'one treatment fits all' approach is likely to work. Patients may 'drop out' when they feel that treatment is complete. It has been noted that patients who were classified as completing treatment attended an average of nine sessions (Swan-Kremeier, Mitchell, Twardowski, Lancaster & Crosby, 2005). Hence, the present study used the criterion of 'drop-outs' being all patients who ceased to attend for treatment before the tenth session. However, this is still a somewhat arbitrary cut-off.

3.2 Hidden data

The implications of choosing a definition became particularly apparent when searching for literature for the review, and as a result different terms were used (e.g., drop-out, attrition) in the search. Despite this, only just over a third of the final articles reviewed were identified through the search, whilst the rest were sourced through references in other articles. A variety of small factors (e.g., the spelling of 'drop-out' as drop-out, drop out or dropout) and larger reasons (e.g., the pressure for

clinical trials to minimise the amount of drop-out they experience) appeared to impact on the difficulty of finding the data. Reflecting back on the process (and through re-formatting the reference sections), additional useful search words would be 'premature termination', 'adherence' and the different spellings of drop-out. A minimum data set for reporting drop-out (see *section 6 Discussion* in *Part 1: Literature Review*) would also be useful for future researchers.

3.3 Measures

There are many other good, reliable and valid measures that could have been used to examine the constructs considered in this project - for example, the Eating Attitudes Test (Garner & Garfinkel, 1979) and the Stirling Eating Disorders Scale (Williams et al., 1994) to assess eating disorder psychopathology, and the Eating Disorder Belief Quesionnaire (Cooper, Cohen-Tovee, Todd, Wells & Tovee, 1997) or the Personality Beliefs Questionnaire (Beck & Beck, 1991) for examining core beliefs. However, as part of this research aimed to replicate previous work conducted by Waller, Sines, Meyer, Foster and Skelton (2007) and Sines, Waller, Meyer and Wigley (under consideration) the measures chosen were those that had been used in these studies. It may be useful in the future to replicate the study using other measures, in order to clarify whether or not the results gained were artefacts of the measures used or 'true' results.

Mahon, Winston, Palmer and Harvey (2001) found that drop-outs in their study were less likely than treatment completers to fill in questionnaires properly, but this was not examined in this project. It may be important for other researchers to take this into consideration when choosing measures to investigate factors that influence adherence to treatment. Interview-based measures (e.g., the Eating Disorder Examination; Fairburn & Cooper, 1993) may provide more accurate and thorough information than their questionnaire-based counterparts (Garner, 2002).

On the other hand, one of the major strengths of this study is that the patients completed the questionnaires as part of the standard assessment and treatment procedure. Whilst investigator-led interviews may provide more accurate information, they may also have an effect on whether patients remain in therapy. During interviews, patients may form a bond with the researchers and, therefore, may feel obliged to continue with treatment and the research project, in order to please the researchers and not to let them down. This could be a particular problem for patients who display the martyred form of narcissism, as this was found to be associated with subjugation beliefs (and these patients are also more likely to drop out). Therefore, I believe collecting the data through routine assessment procedures was more likely to give a realistic picture of drop-out and the influence of narcissism on lack of adherence.

3.4 Time Constraints

The initial plan for the project was to recruit about 90 participants in order to consider differences between patients who fail to engage, drop out or complete treatment. Due to various difficulties encountered (e.g., a reduction in the number of services from which recruitment took place and a delay in receiving Research and Development approval) the final number of participants was 41. This meant, contrary to recommendations by Kazdin and Mazurik (1994), that any potential differences between failures to engage and drop-outs could not be investigated. This was a disappointment, as I had noted that this was a general limitation of the literature so far. Future researchers will hopefully have more time or a bigger participant pool in order to overcome some of these difficulties. Alternatively, useful information for service development and planning in the future could be provided by collecting data as part of a routine clinical audit process.

4 Future Research

The empirical study specifically examined the impact of narcissism on the adherence of adults with eating disorders, who were treated with cognitive-behaviour therapy. I believe that it may be important for future research to consider adherence to other treatment modalities (e.g., cognitive-analytic therapy, interpersonal therapy or psychodynamic treatments). It could be that there is a specific interaction between the martyred form of narcissism and cognitive-behavioural therapy that results in patients prematurely terminating treatment. Other therapies (e.g., those with a greater focus on interpersonal relationships) may not show the same relationship between narcissism and drop-out. Developing an understanding about the interactions between different forms of therapy, narcissism and drop-out may be helpful for informing individualised treatment planning.

Adolescents also present with eating disorders (Lask & Bryant-Waugh, 2000). It may be important to consider whether the results of this study are specific to adults with eating disorders, or whether they might extend to adolescents with eating disorders. Neither the literature review nor the empirical study examined drop-out in adolescents with eating disorders, though research appears to suggest that adolescents with eating disorders have a lower drop-out rate than their adult counterparts (recent figures suggest a drop-out rate of around ten percent - Eisler et al., 2000; Lock, Agras, Bryson & Kraemer, 2005; Zaitsoff, Hewell, Hoste & le Grange, 2007). However, this is still a substantial proportion of patients who fail to complete treatment. The lower rates for adolescents may be due to young people being brought for treatment by their parents, and the patients therefore not being able to choose for themselves whether or not they attend. In research investigating drop-out in adolescents, it may also be important to consider patients' compliance with the treatment plan (e.g., completion of homework, involvement in sessions).

Considering narcissism as a factor that influences lack of adherence to treatment for the eating disorders in adolescents may also be useful. Associations have also been suggested between eating disorder psychopathology and parental narcissism (Brunton, Lacey & Waller, 2005). Therefore, it may also be helpful to consider parental narcissism in relation to the adherence to treatment of adolescents with eating disorders.

5 Clinical Implications - Working with Narcissism in the Eating Disorders

Patients with eating disorders who also have high levels of the martyred form of narcissism often present as eager to please (at least in the early stages of any interaction). For example, patients may ask how the therapist is feeling or have a tendency to respond 'yes' to tasks they are asked to complete. They may also suppress any difficult feelings they have so as not to 'let their therapist down'. Such behaviour may be a method by which patients try to hide their feelings of worthlessness or defectiveness. While this behaviour may leave the therapist feeling positive, it is important to address this style as soon as it becomes apparent. These patients may also feel that they are not worthy of treatment. They may talk about feeling that they are wasting the therapist's time or that there are other, needier, people the therapist should be helping. It is important to address these comments and behaviours early in therapy, and to use them to discuss how the patient's core beliefs may be influencing their thinking.

National Institute of Clinical Excellence guidelines (NICE, 2004) suggest that treatment adaptations should be made when patients with eating disorders also present with comorbid Axis II disorders, such as narcissism. Schema-focused cognitive-behavioural therapy has been suggested as a possible intervention for more complicated cases (Waller & Kennerly, 2003). This study identified seven core

beliefs (abandonment, mistrust, social isolation/alienation, defectiveness/ unlovability, failure to achieve, subjugation and emotional inhibition) associated with the martyred form of narcissism (the form that appeared to have the most impact on adherence to treatment). It may therefore be important to work initially with these core beliefs in order to alleviate the impact of narcissism. It has been suggested that it is important to identify and address central core beliefs, rather than the compensatory beliefs or the behavioural manifestations (Waller, Kennerley & Ohanian, 2007). Of the core beliefs identified as associated with the narcissistically abused personality defence style, three can be identified as central beliefs (abandonment, defectiveness/unlovability, and failure to achieve). Therefore, it may be important that, working collaboratively with the patient, their core central schema is identified as the target for initial treatment. Techniques for intervention may include historical reviews, diaries and dysfunctional thought records, therapy records, flashcards, positive data logs, schema dialogue, using others as a reference point and imagery rescripting (Waller et al., 2007). Moderating the impact of core beliefs on the patient may mean that they will be better able to engage in the more traditional treatment at a later stage.

6 References

Beck, A. T., & Beck, J. S. (1991). *The Personality Beliefs Questionnaire.* (Unpublished assessment instrument. Bala Cynwyd, PA: The Beck Institute for Cognitive Therapy and Research).

Brunton, J. N., Lacey, J. H., & Waller, G. (2005). Eating psychopathology in young non-clinical adults: A pilot study of the impact of parental personality. *European Eating Disorders Review, 13,* 406-410.

Cooper, M. J., Cohen-Tovee, E., Todd, G., Wells, A., & Tovee, M. (1997). A questionnaire to assess assumptions and beliefs in eating disorders: Preliminary findings. *Behaviour Research and Therapy, 35,* 381-388.

Eisler, I., Dare, C., Hodes, M., Russell, G., Dodge, E., & le Grange, D. (2000). Family therapy for adolescent anorexia nervosa: The results of a controlled comparison of two family interventions. *Journal of Child Psychology & Psychiatry, 41,* 727-736.

Fairburn, C. G., & Cooper, Z. (1993). The Eating Disorder Examination (12^{th} ed.). In C. G. Fairburn & G. T. Wilson (Eds.), *Binge eating: Nature, assessment and treatment* (pp. 317-332). New York: Guilford Press.

Garner, D.M. (2002). Measurement of eating disorder psychopathology. In K.D. Brownell & C.G. Fairburn (Eds.), *Comprehensive Textbook of Eating Disorders and Obesity* (2nd Edition, pp. 141-146). New York; Guilford Press.

Garner, D. M., & Garfinkel, P. E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine, 9*, 273-279.

Kazdin, A. E., & Mazurick, J. L. (1994). Dropping out of child psychotherapy: Distinguishing between early and late dropouts over the course of treatment. *Journal of Consulting and Clinical Psychology, 62*, 1069-1074.

Lask B., & Bryant-Waugh, R. (Eds.) (2000). *Anorexia Nervosa and Related Eating Disorders in Childhood and Adolescence.* Hove: Psychology Press

Lock, J., Agras, W. S., Bryson, S., & Kraemer, H. C. (2005). A comparison of short- and long-term family therapy for adolescent anorexia nervosa. *Journal of American Academy of Child & Adolescent Psychiatry, 44*, 632-639.

Mahon, J. (2000). Dropping out from psychological treatment for eating disorders: What are the issues? *European Eating Disorders Review, 8*, 198-216.

Mahon, J., Winston, A. P., Palmer, R. L., & Harvey, P. K. (2001). Do broken relationships in childhood related to bulimic women breaking off psychotherapy in adulthood? *International Journal of Eating Disorders, 29*, 139-149.

National Institute of Clinical Excellence. (2004). *Eating Disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders.* London, UK: British Psychological Society.

O'Brien, M. (1987). Examining the dimensionality of pathological narcissism: factor analysis and construct validity of the O'Brien Multiphasic Narcissism Inventory. *Psychological Reports, 61*. 499-510.

O'Brien, M. (1988). Further evidence for the validity of the O'Brien multiphasic narcissism inventory. *Psychological Reports, 62*, 879-882.

Sines, J., Waller, G., Meyer, C., & Wigley, L. (under consideration). Core beliefs and narcissistic characteristics among eating-disordered and non-clinical women. *Psychology & Psychotherapy*.

Swan-Kremeier, L. A., Mitchell, J. E., Twardowski, T., Lancaster, K., & Crosby, R. S. (2005). Travel distance and attrition in outpatient eating disorder treatment. *International Journal of Eating Disorders, 38*, 367-370.

Waller, G., Cordery, H., Corstorphine, E., Hinrichsen, H., Lawson, R., Mountford, V., & Russell, K. (2007). *Cognitive behavioral therapy for eating disorders: A comprehensive treatment guide*. Cambridge University Press: Cambridge.

Waller, G., & Kennerly, H. (2003). Cognitive behavioural treatments: Current status and future directions. In J. Treasure, U. Schmidt, C. Dare, & E. van Furth (Eds.), *Handbook of eating disorders: Theory, treatment and research* (2nd ed., pp. 233-251). Chichester, UK: Wiley.

Waller, G., Kennerley, H., & Ohanian, V. (2007). Schema-focused cognitive behaviour therapy with eating disorders. In L. P. Riso, P. T. du Toit, & J. E. Young (Eds). *Cognitive schemas and core beliefs in psychiatric disorders: A scientist-practitioner guide*. New York: American Psychological Association.

Waller, G., Sines, J., Meyer, C., Foster, E. & Skelton, A. (2007). Narcissism and narcissistic defences in the eating disorders. *International Journal of Eating Disorders, 40*, 143-148.

Williams, G. J., Power, K. G., Miller, H. R., Freeman, C. P., Yellowlees, A., Dowds, T., Walker, M., & Parry-Jones, W. Ll. (1994). Development and validation of the Stirling Eating Disorders Scales. *International Journal of Eating Disorders, 16*, 35-43.

Zaitsoff, S. L., Hewell, K., Hoste, R. R., & le Grange, D. (2007). *What can dropouts teach us about retention in eating disorder treatment studies?* Paper presented at the Academy of Eating Disorders International Conference on Eating Disorders. Baltimore, Maryland.

APPENDICES

Appendix 1: Eating Disorder Examination – Questionnaire Version (Fairburn & Beglin, 1994)

The following questions are concerned with the PAST FOUR WEEKS ONLY (28 days). Please read each question carefully and circle the appropriate number on the right. Please answer all the questions.

ON HOW MANY DAYS OUT OF THE PAST 28 DAYS		No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every day
1	Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight?	0	1	2	3	4	5	6
2	Have you gone for long periods of time (8 hours or more) without eating anything in order to influence your shape or weight?	0	1	2	3	4	5	6
3	Have you tried to avoid eating any foods which you like in order to influence your shape or weight?	0	1	2	3	4	5	6
4	Have you tried to follow definite rules regarding your eating in order to influence your shape or weight; for example, a calorie limit, a set amount of food, or rules about what or when you should eat?	0	1	2	3	4	5	6
5	Have you wanted your stomach to be empty?	0	1	2	3	4	5	6
6	Has thinking about food or its calorie content made it much more difficult to concentrate on things you are interested in; for example, read, watch TV, or follow a conversation?	0	1	2	3	4	5	6
7	Have you been afraid of losing control over eating?	0	1	2	3	4	5	6
8	Have you had episodes of binge eating?	0	1	2	3	4	5	6
9	Have you eaten in secret? (Do not count binges.)	0	1	2	3	4	5	6

10	Have you definitely wanted your stomach to be flat?	0	1	2	3	4	5	6
11	Has thinking about shape or weight made it more difficult to concentrate on things you are interested in; for example read, watch TV or follow a conversation?	0	1	2	3	4	5	6
12	Have you had a definite fear that you might gain weight or become fat?	0	1	2	3	4	5	6
13	Have you felt fat?	0	1	2	3	4	5	6
14	Have you had a strong desire to lose weight?	0	1	2	3	4	5	6

OVER THE PAST FOUR WEEKS (28 DAYS)

15	On what proportion of times that you have eaten have you felt guilty because of the effect on your shape or weight? (Do not count binges.) (Circle the number which applies.)	0 – None of the times 1 – A few of the times 2 – Less than half the times 3 – Half the times 4 – More than half the times 5 – Most of the times 6 – Every time

16	Over the past four weeks (28 days), have there been any times when you have felt that you have eaten what other people would regard as an unusually large amount of food given the circumstances? (Please circle YES or NO and put appropriate number in box.)	YES	NO
17	How many such episodes have you had over the past four weeks?	(	)
18	During how many of these episodes of overeating did you have a sense of having lost control over your eating?	(	)
19	Have you had other episodes of eating in which you have had a sense of having lost control and eaten too much, but have <u>not</u> eaten an unusually	YES	NO

	large amount of food given the circumstances?	
20	How many such episodes have you had over the past four weeks?	( )
21	Over the past four weeks have you made yourself sick (vomit) as a means of controlling your shape or weight?	YES NO
22	How many times have you done this over the past four weeks?	( )
23	Have you taken laxatives as a means of controlling your shape or weight?	YES NO
24	How many times have you done this over the past four weeks?	( )
25	Have you taken diuretics (water tablets) as a means of controlling your shape or weight?	YES NO
26	How many times have you done this over the past four weeks?	( )
27	Have you exercised <u>hard</u> as a means of controlling your shape or weight?	YES NO
28	How many times have you done this over the past four weeks?	( )

OVER THE PAST FOUR WEEKS (28 DAYS) (PLEASE CIRCLE THE NUMBER WHICH BEST DESCRIBES YOUR BEHAVIOUR.)		NOT AT ALL		SLIGHTLTY		MODERATELY		MARKEDLY
29	Has your weight influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
30	Has your shape influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
31	How much would it upset you if you had to weigh yourself once a week for the next four weeks?	0	1	2	3	4	5	6

32	How dissatisfied have you felt about your weight?	0	1	2	3	4	5	6
33	How dissatisfied have you felt about your shape?	0	1	2	3	4	5	6
34	How concerned have you been about other people seeing you eat?	0	1	2	3	4	5	6
35	How uncomfortable have you felt seeing your body; for example, in the mirror, in shop window reflections, while undressing or taking a bath or shower?	0	1	2	3	4	5	6
36	How uncomfortable have you felt about others seeing your body; for example, in communal changing rooms, when swimming or wearing tight clothes?	0	1	2	3	4	5	6

Appendix 2: O'Brien Multiphasic Narcissism Inventory (O'Brien, 1987; 1988)

INSTRUCTIONS: Please indicate YES or NO as appropriate.

1	Do your friends all come from the same mould?	YES	NO
2.	Do you crave attention from others?	YES	NO
3.	Are you jealous of good-looking people?	YES	NO
4.	Do you tend to feel humiliated when criticized?	YES	NO
5.	Is it important for you to know how other people spend their time?	YES	NO
6.	Do you usually find it hard to settle down?	YES	NO
7.	Would you rather give a gift than receive one?	YES	NO
8.	Do you find yourself fantasizing about your greatness?	YES	NO
9.	Do you think that sexual intercourse is clean?	YES	NO
10.	Do your views of people change back and forth easily?	YES	NO
11.	Is seduction the best part of your sex life?	YES	NO
12.	Do people love you for the way you improve their lives?	YES	NO
13.	Do you worry a lot about your health?	YES	NO
14.	Do you pay a lot of attention to the financial matters of others?	YES	NO
15.	Do you expect people who love you to spend lots of money to show it?	YES	NO
16.	Do you tend to be secretive about your personal life?	YES	NO
17.	Do you wonder why people aren't more appreciative of your goodness?	YES	NO

18. Will your experiences greatly guide others? YES NO

19. Does your life deserve special recognition? YES NO

20. Are you a perfectionist? YES NO

21. Do you tend to see people as being either great or terrible? YES NO

22. Do you know how to solve other people's problems? YES NO

23. If you're tough on others, is it 'for their own good'? YES NO

24. Do you avoid telling people 'what it's all about'? YES NO

25. Do you have a tendency to over-react? YES NO

26. Do you have fantasies about being violent without knowing why? YES NO

27. Do you tend to get angered by others? YES NO

28. Do you appreciate people who 'march to the beat of a different drummer'? YES NO

29. Are you especially sensitive to success and failure? YES NO

30. Are you clever enough to fool most people? YES NO

31. Do you try to avoid dramatizing your feelings? YES NO

32. Do you think that movie stars have better lives than you? YES NO

33. Do you have problems that nobody else seems to understand? YES NO

34. Do you find it easy to relax in a group? YES NO

35. Would you rather try to please others than to have your own way? YES NO

36. Do you try to avoid rejection at all costs? YES NO

37. Do you think that going through life is like walking a tightrope? YES NO

38. Do you tend to feel like a martyr? YES NO

39. Do you find it easier to empathize with your own misfortunes than with those of others? YES NO

40. When confused, do you think of your mother's wishes to help you to resolve your conflicts? YES NO

41. Would your secretive acts horrify your friends? YES NO

Appendix 3: Ethical Approval Letter

London - Surrey Borders Research Ethics Committee
St George's University of London
South London REC office 1
Room 1.13,
1st Floor, Jenner Wing
Tooting
London
SW17 0QT

Telephone: 020 8725 0262
Facsimile: 020 8725 1897

07 September 2006

Miss Mari A Campbell
Trainee Clinical Psychologist
University College London
Sub Department of Clinical Health Psychology
Gower Street
WC1E 6BT

Dear Miss Campbell

Full title of study: **Narcissism in the Eating Disorders: Impact on treatment engagement.**

REC reference number:

Thank you for your letter of 18 August 2006, responding to Committee's request for further information on the above research and submitting revised documentation.

The further information was considered at the meeting of the Sub-Committee of the REC held on 06 September 2006. A list of the members who were present at t eh meeting is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research status

The Committee has designated this study as exempt from site-specific assessment (SSA). There is no requirement for [other] Local Research Ethics Committees to be informed or for site-specific assessment to be carried out at each site.

Conditions of Approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Application	5.1	19 May 2006
Protocol	2	
Letter from Sponsor	1	16 May 2006
Questionnaire: EDE-Q		
Questionnaire: OMNI		
Participant Information Sheet	1	17 May 2006
Participant Consent Form	1	17 May 2006
Response to Request for Further Information	1	18 August 2006
Indemnity Arrangements		01 August 2005
Supervisor's CV: Nancy Pistrang		
Supervisor's CV: Glenn Waller		19 May 2006

Research governance approval

You should arrange for the R&D department at all relevant NHS care organisations to be notified that the research will be taking place, and provide a copy of the REC application, the protocol and this letter.

All researchers and research collaborators who will be participating in the research must obtain final research governance approval before commencing any research procedures. Where a substantive contract is not held with the care organisation, it may be necessary for an honorary contract to be issued before approval for the research can be given.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely

Mrs Sheree Manson
Committee co-ordinator

Email: sheree.manson@stgeorges.nhs.uk

Enclosures. *List of names and professions of members who were present at the meeting and those who submitted written comments.*

Standard approval conditions

Copy to:

University College London
Biomedicine R&D Unit
Royal Free & University College Medical School
Hampstead Campus
Rowland Hill Street, London
NW3 2PF

Appendix 4: Research & Development Approval Letter

RESEARCH & DEVELOPMENT

R&D CONSORTIUM
WEST LONDON MENTAL HEALTH

5 April 2007

Ref no:

Dear Miss Campbell

Re: Narcissism in the eating disorders: impact on treatment engagement

I am pleased to confirm that the above project has received Trust R&D approval, and you may now commence your research.

May I take the opportunity to remind you that during the course of your research you will be expected to ensure the following:

- **Patient contact:** only trained or supervised researchers who hold a Trust/NHS contract (honorary or full) are allowed contact with Trust patients. If you do not hold a contract please contact the R&D Office as soon as possible.
- **Informed consent:** original signed consent forms must be kept on file. A copy of the consent form must also be placed in the patient's notes. Research projects are subject to random audit by a member of the R&D Office who will ask to see all original signed consent forms.
- **Data protection:** measures must be taken to ensure that patient data is kept confidential in accordance with the Data Protection Act.
- **Health & safety:** all local health & safety regulations where the research is being conducted must be adhered to.
- **Adverse events:** adverse events or suspected misconduct should be reported to the R&D Office and the Ethics Committee.
- **Project update:** you will be sent a project update form at regular intervals. Please complete the form and return it to the R&D Office.
- **Publications:** it is essential that you inform the R&D Office about any publications which result from your research.

We would like to wish you every success with your project.

Regards

Maria Tsappis
Research Governance Co-ordinator

WEST LONDON MENTAL HEALTH NHS TRUST & CENTRAL & NORTH WEST LONDON MENTAL HEALTH NHS TRUST
R&D OFFICE, TRUST HEADQUARTERS, ST BERNARD'S WING, UXBRIDGE ROAD, MIDDLESEX UB1 3EU
TEL: 020 8354 8735/8 FAX: 020 8354 8733
EMAIL: rd.office@wlmht.nhs.uk

Appendix 5: Information Sheet

PATIENT INFORMATION SHEET

Title of Project:

Personality Factors and Drop-out in the Eating Disorders

Researchers:

Mari Campbell	Trainee Clinical Psychologist, UCL
Glenn Waller	Consultant Clinical Psychologist, Vincent Square Clinic & Professor of Eating Disorders, Institute of Psychiatry
Nancy Pistrang	Clinical Psychologist, UCL

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- *Part 1 tells you the purpose of this study and what will happen to you if you take part.*
- *Part 2 gives you more detailed information about the conduct of the study.*

Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Part 1

What is the purpose of the study?

People with eating disorders often find it difficult to utilise services offered to them, and as such a large number of patients do not complete treatment. Many factors have been shown to influence the extent to which patients with eating disorders engage in treatment. This study aims to look at personality variables that may influence whether or not patients with eating disorders engage in treatment. It is hoped that by considering these variables new ways of engaging patients in treatment can be developed.

This study forms part of a doctorate in clinical psychology.

Why have I been chosen?

All patients referred to the Eating Disorder Service at Vincent Square Clinic and Springfield University Hospital are being approached to take part in this study.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form, which you will also keep. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive.

What will happen to me if I take part?

Should you agree to take part in the study we will ask you to fill in two questionnaires, before your first appointment at the clinic. These should take no longer than 30 minutes to complete. We would also like to review your clinical notes four months after your treatment has started. You will not be required to be present at this time.

The overall research project will run for 15 months and it is estimated in will finish in June 2007.

What do I have to do?

All you will have to do is complete two short questionnaires, which should take no more than 30 minutes of your time.

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get might help improve the future treatment of people suffering from Eating Disorders.

What happens when the research study stops?

There will be no impact on your involvement in the study or your treatment when the research study stops.

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. More detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. All the information you give through your participation in this study will be kept confidential. All data will be anonymised.

Contact Details:

For further information about the study or should you have any concerns during the study, you can contact Mari Campbell or Glenn Waller on 020 8237 2104.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

What will happen if I don't want to carry on with the study?

Should you no longer wish to carry on with the study you are free to withdraw at anytime. Should you wish any data that can still be identified as yours can be destroyed.

What if there is a problem?

Complaints: If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions (Tel: 020 8237 2104). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure. Details can be obtained from the hospital.

Harm: UCL has indemnity arrangement in place, in the event that something does go wrong and you are harmed during the research study. If you are harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against (Central & North West London Mental Health & Social Care NHS Trust/South West London & St. George's NHS Trust) but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you (if appropriate).

Will my taking part in this study be kept confidential?

Data will be collected through the questionnaires you complete and by looking at your medical records. All information which is collected about you during the course of the research will be kept strictly confidential. Only the named researchers will have access to data that identifies you by name. Any information about you which leaves the hospital will have your name and address removed so that you cannot be recognised from it. All data will be stored securely. Data will be kept for 10 years and will be disposed of securely when this time elapses.

Involvement of the General Practitioner/Family doctor (GP)

With your consent, we may contact your GP to notify them of your participation in the trial.

What will happen to the results of the research study?

At the end of this study it is hoped that the findings will be published in a peer-reviewed journal. An information sheet detailing the results will also be made available to all participants. You will not be identified in any report or publication.

Who is organising and funding the research?

The research is being organised in collaboration between the Eating Disorder Services at Vincent Square Clinic and Springfield University Hospital, and the Sub-department of Clinical Health Psychology, University College London (UCL). UCL is funding the research.

Who has reviewed the study?

This study was given a favourable ethical opinion for conduct in the NHS by the London-Surrey Borders Local Research Ethics Committee.

Thank you for taking time to read this sheet and consider taking part.

Title of Project:

Personality Factors and Drop-out in the Eating Disorders

Name of Researchers:

Mari Campbell	Trainee Clinical Psychologist, UCL
Glenn Waller	Consultant Clinical Psychologist, Vincent Sq Professor of Eating Disorders, Institute of Ps
Nancy Pistrang	Clinical Psychologist, UCL

Ple

1 I confirm that I have read and understand the information sheet dated ..... (version .....) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2 I understand that my participation is voluntary and that I am free to withdra time, without giving any reason, without my medical care or legal rights be affected.

3 I understand that relevant sections of any of my medical notes and data c during the study, may be looked at by the individuals named above, where relevant to my taking part in this research. I give permission for these indi to have access to my records.

4 I agree to my GP being informed of my participation in the study.

5 I agree to take part in the above study.

Name of Patient	Date	Sign
Name of Person taking consent (if different from researcher)	Date	Sign
Researcher	Date	Sign

(1 for patient; 1 for researcher site file; 1 (original) to be kept in medical notes)